

STN search for 10765,797

(FILE 'HOME' ENTERED AT 15:49:50 ON 15 MAR 2005)

FILE 'CPLUS' ENTERED AT 15:50:01 ON 15 MAR 2005
L1 637015 S INFRARED OR IR OR INFRA RED
L2 7711 S L1 AND DYE
L3 309 S L2 AND FLUORO?
L4 10 S L3 AND PERFLUORO?
L5 0 S L4 NOT L3
L6 44388 S LITHOGRAPH? OR PLANOGRAPH?
L7 6 S L6 AND L3
L8 0 S L4 AND L6

=> s l3 and plate
309879 PLATE
L9 11 L3 AND PLATE

=> s l9 not l6
L10 6 L9 NOT L6

=> d all 1-6

L10 ANSWER 1 OF 6 CPLUS COPYRIGHT 2005 ACS on STN
AN 2002:216128 CPLUS
DN 136:264488
ED Entered STN: 22 Mar 2002
TI Polymethine near-IR dyes, their production and their use
IN Sasaki, Nobuaki; Wada, Sayuri; Fujita, Shigeo; Iwasaki, Yasuhisa
PA Yamamoto Chemicals, Inc., Japan
SO Eur. Pat. Appl., 47 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C09B023-01
ICS B41C001-10; C09B023-00
CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
Sensitizers)
Section cross-reference(s): 27, 74

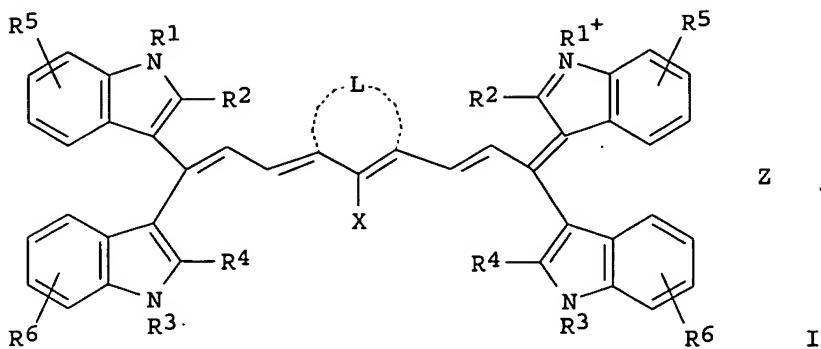
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1188797 | A2 | 20020320 | EP 2001-307516 | 20010904 |
| | EP 1188797 | A3 | 20040310 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | US 2002051939 | A1 | 20020502 | US 2001-951216 | 20010911 |
| | JP 2002187879 | A2 | 20020705 | JP 2001-275938 | 20010912 |
| PRAI | JP 2000-278102 | A | 20000913 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|------------------------------------|
| | EP 1188797 | ICM | C09B023-01 |
| | | ICS | B41C001-10; C09B023-00 |
| | EP 1188797 | ECLA | C09B023/00D |
| | US 2002051939 | ECLA | C09B023/00D |

OS MARPAT 136:264488
GI



AB The invention provides a near-IR absorbing material showing a high sensitivity to a YAG laser having an emission wavelength of 900.apprx.1100 nm as well as a high photothermal conversion efficiency, an original plate for direct printing plate making which utilizes the near-IR absorbing material, and near-IR -absorbing polymethine dyes (R₁, R₃ = optionally substituted alkyl, optionally substituted aryl, C₅-7-cycloalkyl; R₂, R₄ = optionally substituted alkyl, optionally substituted aryl; R₅, R₆ = H, optionally substituted alkyl, optionally substituted alkoxy; X = H, halogen, substituted amino; Z = charge-neutralizing ion). I are obtained from indolylethylene compds. and dianils.

ST polymethine near IR dye prodn; direct printing plate manuf near IR dye; photothermal conversion layer near IR dye; near IR absorbing material

IT Cyanine dyes
(near-IR-absorbing; production of near-IR-absorbing dyes for photothermal conversion layers and direct printing plate manufacture)

IT Printing plates
Thermo optical effect
(production of near-IR-absorbing dyes for photothermal conversion layers and direct printing plate manufacture)

IT 404868-71-9P 404868-72-0P 404868-74-2P 404868-75-3P 404868-77-5P
404868-79-7P 404868-81-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymethine dye; production of near-IR-absorbing dyes for photothermal conversion layers and direct printing plate manufacture)

IT 7778-74-7, Potassium perchlorate 14075-53-7, Potassium fluoroborate 63856-99-5 63857-00-1 122734-62-7 124521-57-9
132426-80-3 155846-76-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; production of near-IR-absorbing dyes for photothermal conversion layers and direct printing plate manufacture)

L10 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:697411 CAPLUS
DN 134:111026
ED Entered STN: 04 Oct 2000
TI Time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications

STN search for 10765,797

AU Lassiter, Suzanne J.; Stryjewski, Wieslaw; Legendre, Benjamin L., Jr.; Erdmann, Rainer; Wahl, Michael; Wurm, John; Peterson, Rex; Middendorf, Lyle; Soper, Steven A.
CS Department of Chemistry, Louisiana State University, Baton Rouge, LA, 70803-1804, USA
SO Analytical Chemistry (2000), 72(21), 5373-5382
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 10
AB A compact time-resolved near-IR fluorescence imager was constructed to obtain lifetime and intensity images of DNA sequencing slab gels. The scanner consisted of a microscope body with f/1.2 relay optics onto which was mounted a pulsed diode laser (repetition rate 80 MHz, lasing wavelength 680 nm, average power 5 mW), filtering optics, and a large photoactive area (diameter 500 μ m) single-photon avalanche diode that was actively quenched to provide a large dynamic operating range. The time-resolved data were processed using electronics configured in a conventional time-correlated single-photon-counting format with all of the counting hardware situated on a PC card resident on the computer bus. The microscope head produced a timing response of 450 ps (fwhm) in a scanning mode, allowing the measurement of subnanosecond lifetimes. The time-resolved microscope head was placed in an automated DNA sequencer and translated across a 21-cm-wide gel plate in .apprx.6 s (scan rate 3.5 cm/s) with an accumulation time per pixel of 10 ms. The sampling frequency was 0.17 Hz (duty cycle 0.0017), sufficient to prevent signal aliasing during the electrophoresis separation. Software (written in Visual Basic) allowed acquisition of both the intensity image and lifetime anal. of DNA bands migrating through the gel in real time. Using a dual-labeling (IRD700 and Cy5.5 labeling dyes)/two-lane sequencing strategy, we successfully read 670 bases of a control M13mp18 ssDNA template using lifetime identification. Comparison of the reconstructed sequence with the known sequence of the phage indicated the number of miscalls was only 2, producing an error rate of .apprx.0.3% (identification accuracy 99.7%). The lifetimes were calculated using maximum likelihood estimators and allowed online detns. with high precision, even when short integration times were used to construct the decay profiles. Comparison of the lifetime base calling to a single-dye /four-lane sequencing strategy indicated similar results in terms of miscalls, but reduced insertion and deletion errors using lifetime identification methods, improving the overall read accuracy.
ST time resolved fluorescence imaging slab gel electrophoresis; lifetime base calling DNA sequencing application
IT Apparatus
 (automated DNA sequencer; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT Computer program
 (for intensity image and lifetime anal. of DNA bands; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT Microscopes
 (head, time-resolved near-IR laser-induced; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT Imaging
 (lifetime and intensity; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT IR lasers

STN search for 10765,797

(near-IR; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)

IT DNA
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(single-stranded, M13mp18, sequence of; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT Electrophoresis
(slab; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT Coliphage M13
(ssDNA; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT DNA sequence analysis
Data processing
Fluorescent substances
Optical detectors
(time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT Fluorometry
(time-resolved; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)
IT 172777-84-3, Cy5.5 251102-88-2, IRD700
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(labeling dye; time-resolved fluorescence imaging of slab gels for lifetime base-calling in DNA sequencing applications)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (5) He, H; Anal Chem 1998, V70, P3413 CAPLUS
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- (24) Zhang, Y; Appl Spectrosc 1999, V53, P497 CAPLUS

L10 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:188738 CAPLUS

DN 132:302697

ED Entered STN: 24 Mar 2000

TI Nonaqueous capillary electrophoresis of fatty acids derivatized with a near-infrared fluorophore
AU Gallaher, David L., Jr.; Johnson, Mitchell E.
CS Department of Chemistry and Biochemistry, Duquesne University, Pittsburgh, PA, 15282-1530, USA
SO Analytical Chemistry (2000), 72(9), 2080-2086
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
CC 80-4 (Organic Analytical Chemistry)
AB Saturated linear fatty acids, derivatized with a near-IR absorbing fluorescent dye, were separated in 100% methanol with 12.5 mM tetraethylammonium chloride added as a charge carrier. Separation at 380 V/cm was acceptable for acids that differed in length by a single carbon. The labeled linear fatty acids behaved as random coils in the nonaq. separation medium, as shown in a fit to a simple theor. expression. However, even in 100% methanol with a trimethylsilylated capillary, significant adsorption to the capillary wall occurred, which reduced resolution and slowed the separation
Addition of water to the methanol medium caused significant differences in separation behavior of high mol. weight acids (>C16). Addition of a cetyltrimethylammonium bromide surfactant to the separation medium dynamically coated the capillary and greatly improved the separation. The surfactant also interacted with the acyl tail, apparently causing it to collapse. Resolution in an optimal separation medium (20 mM surfactant) ranged from 1.6 to 1.1, depending on chain length, and theor. plate heights were under 4 μ m (N > 105). Resolution was more than adequate to sep. stearic (C18:0) from oleic (C18:1) acid, as well as other unsatd. C18 homologs.
ST nonaq capillary electrophoresis fatty acid near IR fluorophore derivatization
IT Fluorescent dyes
(near IR absorbing; nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)
IT Capillary electrophoresis
Homologous series
(nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)
IT Fatty acids, analysis
RL: ANT (Analyte); ANST (Analytical study)
(nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)
IT 56-34-8, Tetraethylammonium chloride 57-09-0, Cetyltrimethylammonium bromide
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); ANST (Analytical study); USES (Uses)
(carrier; nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)
IT 538-75-0, N,N'-Dicyclohexylcarbodiimide
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); ANST (Analytical study); USES (Uses)
(for nonaq. capillary electrophoresis of fatty acids derivatized with near-IR fluorophore)
IT 57-10-3, Hexadecanoic acid, analysis 57-11-4, Octadecanoic acid, analysis 60-33-3, Linoleic acid, analysis 64-19-7, Acetic acid, analysis 79-09-4, Propanoic acid, analysis 107-92-6, Butanoic acid, analysis 109-52-4, Pentanoic acid, analysis 111-14-8, Heptanoic acid 112-05-0, Nonanoic acid 112-37-8, Undecanoic acid 112-85-6, Docosanoic acid 124-07-2, Octanoic acid, analysis 142-62-1, Hexanoic acid, analysis 143-07-7, Dodecanoic acid, analysis 334-48-5, Decanoic acid

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506-12-7, Heptadecanoic acid 506-26-3, γ -Linolenic acid
506-30-9, Eicosanoic acid 638-53-9, Tridecanoic acid 27104-13-8
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST
(Analytical study); PROC (Process)
(nonaq. capillary electrophoresis of fatty acids derivatized with near-
IR fluorophore)

IT 264915-22-2
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nonaq. capillary electrophoresis of fatty acids derivatized with near-
IR fluorophore)

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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L10 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:178797 CAPLUS

DN 126:209140

ED Entered STN: 17 Mar 1997

TI High-Resolution Separation of DNA Restriction Fragments Using Capillary Electrophoresis with Near-IR, Diode-Based, Laser-Induced Fluorescence Detection

AU Owens, Clyde V.; Davidson, Yolanda Y.; Kar, Satyajit; Soper, Steven A.
CS Department of Chemistry, Louisiana State University, Baton Rouge, LA,
70803-1804, USA

SO Analytical Chemistry (1997), 69(6), 1256-1261
CODEN: ANCHAM; ISSN: 0003-2700

PB American Chemical Society

DT Journal

LA English

CC 9-5 (Biochemical Methods)

Section cross-reference(s): 3, 73, 80

AB The near-IR dye thiazole green (TAG) was used as a monomeric nuclear staining dye for the low-level detection of

DNA restriction fragments separated via high-performance capillary electrophoresis with near-IR laser-induced fluorescence detection. TAG possessed an absorption maximum at 735 nm and an emission maximum at approx. 765 nm and, in the presence of dsDNAs, showed a fluorescence enhancement ratio of approx. 102, with a binding constant to dsDNAs determined to be $6.1 + 106$ M-1. The high-resolution separation of the HaeIII restriction digest of ϕ X174 was carried out using capillary electrophoresis on the native, ethidium bromide (EtBr)-stained and TAG-stained DNA fragments. The TAG-stained DNA fragments resulted in higher plate nos. compared to the native and EtBr-stained restriction fragments as well as enhanced resolution; however, the 271/281 fragments could not be resolved using these CE conditions. To investigate the detection sensitivity of the TAG-stained DNA in capillary electrophoresis, an all-solid-state diode-based, laser-induced fluorescence (LIF) detector was constructed, which consisted of a GaAlAs diode laser, with a principal lasing line at 750 nm and an avalanche photodiode. By using a running buffer composed of an entangled polymer (HPMC) and 1 μ M TAG with no prestaining of the dsDNA prior to the electrophoresis, the limit of detection was 20 fg (SNR = 3) of DNA per electrophoretic band. In addition, using the LIF system, the 271/281 bp fragments were nearly baseline resolved, with plate nos. exceeding $1 + 106$ plates/m.

ST DNA restriction fragment detection electrophoresis **fluorometry**; capillary electrophoresis DNA restriction fragment; fluorescence detector DNA restriction fragment electrophoresis; thiazole green stain DNA restriction fragment

IT Capillary electrophoresis
Coliphage ϕ X174
Laser **fluorometry**
Staining, biological
Stains, biological
(DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

IT DNA
RL: ANT (Analyte); ANST (Analytical study)
(double-stranded; DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

IT 188010-45-9, Thiazole green
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

IT 120-75-2, 2-Methylbenzothiazole 627-31-6, 1,3-Diodopropane
51143-32-9, Malonaldehyde dianil hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

IT 491-35-0P, Lepidine 2785-06-0P 58992-59-9P 187988-10-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(DNA restriction fragments detection by capillary electrophoresis with fluorescence detector)

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L10 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:143104 CAPLUS
DN 116:143104
ED Entered STN: 03 Apr 1992
TI Determination of amino acids by capillary zone electrophoresis based on semiconductor laser fluorescence detection
AU Higashijima, Toshiyuki; Fuchigami, Tetsuhiro; Imasaka, Totaro; Ishibashi, Nobuhiko
CS Fac. Eng., Kyushu Univ., Fukuoka, 812, Japan
SO Analytical Chemistry (1992), 64(7), 711-14
CODEN: ANCHAM; ISSN: 0003-2700
DT Journal
LA English
CC 80-6 (Organic Analytical Chemistry)
AB Chlorophyll is fluorescent in the deep-red region and is determined by semiconductor laser fluorometry after its separation with capillary zone electrophoresis. The separation efficiency is several hundred thousand in the theor. plate. Methylene blue is used as a chromophore in indirect fluorometry. The detection limit achieved is 1-pmol levels. A new labeling reagent is synthesized, which consists of a thiazine chromophore for fluorescence detection and a succinimidyl ester for combination with an amino acid. The labeled amino acids are clearly resolved by capillary zone electrophoresis, the detection limit being 10-pmol levels. Amino acids are further labeled with a visible dye such as fluorescein isothiocyanate (FITC) or 7-(diethylamino)coumarin-3-carboxylic acid succinimidyl ester (DCCS), and are detected with visible semiconductor laser fluorometry using second harmonic emission (415 nm) of the near-IR semiconductor laser. The detection limit achieved is .apprx.100-amol levels.
ST amino acid detn electrophoresis laser fluorometry; semiconductor laser fluorometry amino acid detn; capillary zone electrophoresis amino acid detn; thiazine chromophore reagent amino acid

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detn; succinimidyl ester reagent amino acid detn; chlorophyll detn
electrophoresis laser fluorometry

IT Amino acids, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by capillary zone electrophoresis/fluorometry
using labeling reagent)

IT Fluorometry
(laser, capillary zone electrophoresis combined with, determination of amino
acids by)

IT Electrophoresis and Ionophoresis
(zone, capillary, laser fluorometry combined with, determination of
amino acids by)

IT 67806-06-8
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(addition reaction of, with Azur B-mercaptoproacetic acid condensation
product)

IT 61-73-4, Methylene blue
RL: ANST (Analytical study)
(as indirect fluorophore in determination of amino acids by capillary
zone electrophoresis/fluorometry)

IT 139346-57-9
RL: ANST (Analytical study)
(as labeling reagent in determination of amino acids by capillary zone
electrophoresis/fluorometry)

IT 68-11-1, Mercaptoacetic acid, reactions
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(condensation of, with Azur B)

IT 531-55-5, Azure B
RL: ANST (Analytical study)
(condensation of, with mercaptoacetic acid)

IT 479-61-8
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by capillary zone electrophoresis/fluorometry)

IT 56-40-6, Glycine, analysis 56-45-1, Serine, analysis 74-79-3,
Arginine, analysis 147-85-3, Proline, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by capillary zone electrophoresis/fluorometry
using labeling reagent)

IT 139312-25-7P
RL: SPN (Synthetic preparation); ANST (Analytical study); PREP
(Preparation)
(preparation and use of, as labeling reagent in determination of amino
acids by
capillary zone electrophoresis/fluorometry)

L10 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:669616 CAPLUS
DN 115:269616
ED Entered STN: 14 Dec 1991
TI Semiconductor lasers in analytical chemistry
AU Patonay, Gabor; Antoine, Miquel D.; Boyer, Anne E.
CS Dep. Chem., Georgia State Univ., Atlanta, GA, 30303, USA
SO Proceedings of SPIE-The International Society for Optical Engineering
(1991), 1435 (Opt. Methods Ultrasensitive Detect. Anal.: Tech. Appl.),
52-63
CODEN: PSISDG; ISSN: 0277-786X
DT Journal; General Review
LA English
CC 80-6 (Organic Analytical Chemistry)
Section cross-reference(s): 25, 28, 41, 79

AB The use of near-IR laser diode spectroscopy in anal. chemical is reviewed with 26 refs., but new results are also presented. The preparation of 1-(1-pyrenyl)-2-(3-ethylbenzothiazolium)ethylene bromide is reported and the uses of it and 2-[4'-chloro-7'-(3''-ethyl-2''-benzothiazolinylidene)-3',5'-(1''',3'''-propanediyl)-1',3',5'-heptatriene-1'-yl]-3-ethylbenzothiazolium bromide (I) are described. Laser diode intracavity absorption spectrometry was evaluated by using molybdenum blue methods for phosphorus and tannic acid in aqueous solution; the anal. useful signal was obtained by measuring the built-in integral monitoring photodiode signal of the laser diode. A calibration curve for the near-IR dye of HDITC is also shown. A bis-carboxylic acid derivative of I was used for determining pH using near-IR spectroscopy. I was used as a microhydrophobicity probe in micellar systems. Near-IR calibration calibration curves are shown for surface bound indocyanine green on polystyrene beads and in microliter plate wells.

ST review near IR laser diode spectroscopy; cyanine dye laser diode spectrochem analysis; intracavity laser diode absorption spectrochem analysis; phosphorus trace detn laser diode spectroscopy; tannic acid detn laser diode spectroscopy; pH detn laser diode spectroscopy; hydrophobicity microprobe micellar system cyanine dye; adsorbed dye detn near IR fluorescence

IT Micelles
(determination of hydrophobicity in systems of, using near-IR laser diode spectroscopic microprobe)

IT Hydrophobicity
(determination of micro-, in micellar systems by near-IR laser diode spectroscopy using cyanine dyes)

IT Tannins
RL: ANST (Analytical study)
(determination of trace, in aqueous solns. by laser diode intracavity absorption spectrometry using cyanine dye)

IT Adsorbed substances
(determination of, by near-IR laser-induced fluorescence spectrometry)

IT Spectrochemical analysis
(fluorometric, laser-induced, near-IR, for surface-bound mols.)

IT Spectrochemical analysis
(near-IR, using semiconductor lasers and cyanine dyes)

IT Spectrochemical analysis
(near-IR, intracavity absorption, using semiconductor lasers and cyanine dyes)

IT Lasers
(semiconductor, in anal. chemical)

IT 74-96-4, Ethyl bromide
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(alkylation by, of methylbenzothiazole)

IT 120-75-2, 2-Methylbenzothiazole
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(alkylation of, by Et bromide)

IT 3599-32-4, Indocyanine green
RL: ANST (Analytical study)
(determination of surface-bound, on microliter plate wells and polystyrene beads by near-IR laser diode fluorescence spectrometry)

IT 7723-14-0, Phosphorus, analysis
RL: ANST (Analytical study)
(determination of trace, in aqueous solns. by laser diode intracavity absorption

STN search for 10765,797

IT spectrometry using cyanine dye)
23178-67-8, HDITC
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by near-IR laser diode intracavity absorption
spectrometry)

IT 137500-53-9
RL: ANST (Analytical study)
(for determination of pH by near-IR laser diode absorption
spectrometry using cyanine dye)

IT 57-09-0, CTAB 123-03-5, CPC 151-21-3, SDS, analysis 9005-65-6,
Tween-80
RL: ANST (Analytical study)
(hydrophobic environment of, in aqueous systems, near-IR laser
diode spectrometry using pyrenyl dye in study of)

IT 7732-18-5
RL: ANST (Analytical study)
(hydrophobicity, determination of micro-, in micellar systems by near-
IR laser diode spectroscopy using cyanine dyes)

IT 70446-41-2
RL: ANST (Analytical study)
(near-IR and visible spectra and use of, in near-IR
laser diode spectrochem. anal. and hydrophobicity studies)

IT 52299-76-0P, 3-Ethyl-2-methylbenzothiazolium bromide
RL: RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study);
PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with pyrene carboxaldehyde)

IT 135251-75-1P
RL: ANST (Analytical study); PREP (Preparation)
(preparation and visible spectrum and use of, in near-IR laser
diode spectrochem. anal. and hydrophobicity studies)

IT 3029-19-4, 1-Pyrenecarboxaldehyde
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(reaction of, with methylbenzothiazolium bromide derivative)

=> s heat and plate
1208744 HEAT
309879 PLATE
L11 38550 HEAT AND PLATE

=> d his

(FILE 'HOME' ENTERED AT 15:49:50 ON 15 MAR 2005)

FILE 'CAPLUS' ENTERED AT 15:50:01 ON 15 MAR 2005
L1 637015 S INFRARED OR IR OR INFRA RED
L2 7711 S L1 AND DYE
L3 309 S L2 AND FLUORO?
L4 10 S L3 AND PERFLUORO?
L5 0 S L4 NOT L3
L6 44388 S LITHOGRAPH? OR PLANOGRAPH?
L7 6 S L6 AND L3
L8 0 S L4 AND L6
L9 11 S L3 AND PLATE
L10 6 S L9 NOT L6
L11 38550 S HEAT AND PLATE

=> s 111 and dye
242856 DYE
L12 528 L11 AND DYE

STN search for 10765,797

=> s l12 and fluoro?
379314 FLUORO?
L13 12 L12 AND FLUORO?

=> s l12 and perfluoro?
47229 PERFLUORO?
L14 1 L12 AND PERFLUORO?

=> s l13 or l14
L15 13 L13 OR L14

=> d all 1-13

L15 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:993627 CAPLUS
DN 141:425091
ED Entered STN: 19 Nov 2004
TI Dye-containing curable compositions with good heat and
light resistance for color filters and their production method
IN Suzuki, Nobuo
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 36 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G02B005-20
ICS C09D007-12; C09D201-00; G03F007-004
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 41, 74

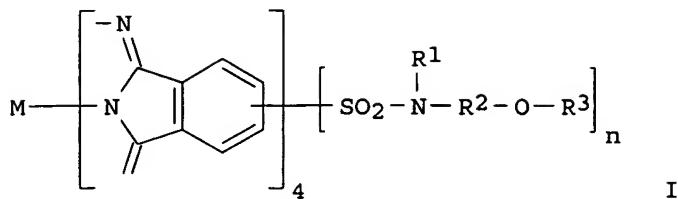
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2004325660 | A2 | 20041118 | JP 2003-118692 | 20030423 |
| PRAI JP 2003-118692 | | 20030423 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2004325660 | ICM | G02B005-20 |
| | ICS | C09D007-12; C09D201-00; G03F007-004 |
| JP 2004325660 | FTERM | 2H025/AA10; 2H025/AA11; 2H025/AB13; 2H025/AC01; 2H025/AD01; 2H025/AD03; 2H025/BC14; 2H025/BC32; 2H025/BC42; 2H025/BE01; 2H025/CA01; 2H025/CA07; 2H025/CA20; 2H025/CA28; 2H025/CA39; 2H025/CB13; 2H025/CB14; 2H025/CB43; 2H025/CB52; 2H025/CC03; 2H025/CC13; 2H025/FA03; 2H025/FA17; 2H048/BA02; 2H048/BA45; 2H048/BA47; 2H048/BB02; 2H048/BB42; 2H048/BB46; 4J038/CE021; 4J038/CG031; 4J038/CG071; 4J038/DL031; 4J038/KA03; 4J038/KA08; 4J038/KA12; 4J038/MA09 |

OS MARPAT 141:425091
GI



AB Title compns. comprise (A) alkali-soluble resins, (B) phthalocyanine type dyes having total carbons of the substituted parts 4-40 I, (C) photosensitive compds., and (D) solvents, wherein R1 = H or C1-4 alkyl; R2 = C1-6 alkylene; R3 = (etheric oxygen-containing) C1-8 alkyl (total carbons of R1, R2, R3, and R4 = 2-12); n = 1-4 number; and M = divalent metal, trivalent metal having monosubstituent, tetravalent metal having disubstituent, or oxymetal. Thus, a resist solution comprising propylene glycol monomethyl ether acetate 28.9, Et lactate 28.9, 41% benzyl methacrylate-methacrylic acid-2-hydroxyethyl methacrylate copolymer solution 30.5, dipentaerythritol hexaacrylate 10.2, p-methoxyphenol 0.006, fluorosurfactant 0.80, and TAZ 107 photoinitiator 0.58 parts was applied on a glass plate and dried at 220° for 1 h, a phthalocyanine type dye-containing resist was applied thereon, prebaked at 110° for 120 s, irradiated through a photomask, developed, washed, and dried to give a test piece with good solubility (dye resist), storage stability (dye resist), and heat and light resistance.

ST dye contg curable compn heat light resistance color filter; alkali soluble copolymer dipentaerythritol hexaacrylate phthalocyanine dye resist

IT Dyes
 Optical filters
 (dye-containing curable compns. with good heat and light resistance for color filters)

IT Light-resistant materials
 (heat-resistant; dye-containing curable compns. with good heat and light resistance for color filters)

IT Heat-resistant materials
 (light-resistant; dye-containing curable compns. with good heat and light resistance for color filters)

IT Resists
 (neg.-working; dye-containing curable compns. with good heat and light resistance for color filters)

IT Resists
 (pos.-working; dye-containing curable compns. with good heat and light resistance for color filters)

IT 3770-97-6DP, reaction products with Tisp PA 110726-28-8DP, Trisp PA, reaction products with Naphthoquinonediazide-5-sulfonyl chloride
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (alkali soluble polymer; dye-containing curable compns. with good heat and light resistance for color filters)

IT 141655-30-3P, Benzyl methacrylate-methacrylic acid-2-hydroxyethyl methacrylate copolymer
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 (alkali-soluble; dye-containing curable compns. with good

STN search for 10765,797

heat and light resistance for color filters)

IT 67653-78-5P, Dipentaerythritol hexaacrylate homopolymer 795308-27-9P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye-containing curable compns. with good heat and
light resistance for color filters)

IT 147-14-8D, derivs. 13930-88-6D, derivs. 795314-12-4 795314-13-5
795314-14-6 795314-15-7 795314-16-8 795314-17-9 795314-18-0
795314-19-1 795314-20-4 795314-21-5 795314-22-6 795314-23-7
795314-24-8 795314-25-9 795314-26-0 795314-27-1 795314-28-2
795314-29-3 795314-30-6 795314-31-7 795314-32-8 795314-33-9
795314-34-0 795314-36-2 795314-37-3 795314-38-4 795314-39-5
795314-40-8 795314-41-9 795314-42-0 795314-43-1 795314-44-2
795314-45-3 795314-46-4 795314-47-5 795314-48-6 795314-49-7
795314-50-0 795314-51-1 795314-52-2 795314-53-3 795314-54-4
795314-55-5 795314-56-6 795314-57-7 795314-58-8 795314-59-9
795314-60-2 795314-61-3 795314-62-4 795314-63-5 795314-64-6
795314-72-6 795314-73-7
RL: MOA (Modifier or additive use); USES (Uses)
(dye-containing curable compns. with good heat and
light resistance for color filters)

IT 3770-97-6 110726-28-8, Trisp PA
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant in alkali soluble polymer preparation; dye-containing curable
compns. with good heat and light resistance for color
filters)

L15 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:779904 CAPLUS

DN 141:304301

ED Entered STN: 24 Sep 2004

TI Heat-sensitive lithographic printing plate precursor
containing IR absorbing dye with perfluoroalkyl
substituent

IN Deroover, Geert; Van Damme, Marc

PA Agfa-Gevaert, Belg.

SO U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM B41N001-00

NCL 101453000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|------|----------|-----------------|----------|
| PI | US 2004182268 | A1 | 20040923 | US 2004-765797 | 20040127 |
| | JP 2004341484 | A2 | 20041202 | JP 2004-18894 | 20040127 |
| PRAI | EP 2003-100154 | A | 20030127 | | |
| | US 2003-444470P | P | 20030203 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-------|---|
| US 2004182268 | ICM | B41N001-00 |
| | NCL | 101453000 |
| JP 2004341484 | FTERM | 2H025/AA02; 2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB51; 2H025/CC11; 2H025/DA03; 2H025/FA17; 2H096/AA06; 2H096/BA09; 2H096/EA04; 2H096/GA08 |

This APP!

STN search for 10765,797

OS MARPAT 141:304301

AB A heat-sensitive pos. working lithog. printing plate precursor is described that has high differentiation between exposed and non-exposed areas and which has high sensitivity. Thus, the plate precursor comprises a hydrophilic support and a coating consisting of a first layer containing an oleophilic resin soluble in an aqueous alkaline developer and a second layer containing a water repellent compound. The coating comprises an IR absorbing dye sensitizer containing a perfluoroalkyl group that provides the printing plate precursor with high sensitivity. The IR absorbing dye can be present in the first layer, or in the second layer or in the optional other layer.

ST heat sensitive lithog printing plate precursor IR dye; perfluoroalkyl substituent IR dye lithog printing plate precursor

IT Dyes
(IR-absorbing; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Surfactants
(heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Lithographic plates
(heat-sensitive; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Polysiloxanes, uses
RL: DEV (Device component use); USES (Uses)
(polyether-, Tego wet 265, oleophilic resin layer; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Polysiloxanes, uses
RL: DEV (Device component use); USES (Uses)
(polyoxyalkylene-, graft, Tego glide 410, oleophilic resin layer; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Polyoxyalkylenes, uses
RL: DEV (Device component use); USES (Uses)
(polysiloxane-, graft, Tego glide 410, oleophilic resin layer; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT Polyethers, uses
RL: DEV (Device component use); USES (Uses)
(siloxane-, Tego wet 265, oleophilic resin layer; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 134127-48-3
RL: NUU (Other use, unclassified); USES (Uses)
(comparison dye; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 762276-41-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(comparison dye; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 762276-37-9P 762276-38-0P 762276-39-1P 762276-40-4P

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RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 573-11-5, 2,3,4-Trimethoxybenzoic acid 1320-67-8, Methoxypropanol 56730-76-8, Fluorad 100346-90-5, Alnovol SPN452
RL: DEV (Device component use); USES (Uses)
(heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 142-04-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(intermediate in synthesis of comparison dye; synthesis of IR absorbing dye sensitizer)

IT 98826-99-4P 762276-49-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate in synthesis of comparison dye; synthesis of IR absorbing dye sensitizer)

IT 15901-42-5 41532-84-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(intermediate; synthesis of IR absorbing dye sensitizer)

IT 6761-94-0P 29457-72-5P 61010-04-6P 121276-93-5P 200574-76-1P 263762-34-1P 762276-42-6P 762276-43-7P 762276-44-8P 762276-45-9P 762276-46-0P 762276-47-1P 762276-48-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; synthesis of IR absorbing dye sensitizer)

IT 7429-90-5D, Aluminum, oxidized
RL: DEV (Device component use); USES (Uses)
(support; Heat-sensitive lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

IT 530-62-1, 1,1'-Carbonyldiimidazole 34598-33-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of IR absorbing dye sensitizer)

IT 12707-52-7, FC431
RL: DEV (Device component use); USES (Uses)
(water repellent; heat-sensitive pos. lithog. printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent)

L15 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:696361 CAPLUS
DN 141:208581
ED Entered STN: 26 Aug 2004
TI Heteropolycyclic compounds for coloring matters, pigments, dyes, color-changing material compositions, and color-changing films
IN Yoshida, Katsuhira; Ooyama, Yousuke; Hachiya, Satoshi
PA Idemitsu Kosan Co., Ltd., Japan; Techno Network Shikoku Co., Ltd.
SO PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C07D263-60
ICS C07D307-77; C07D498-04; C07D498-06; C07D311-78; C07D491-06; C09B057-00; C09B057-12; C09K011-06
CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 27, 28, 38, 42, 74

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2004072053 | A1 | 20040826 | WO 2004-JP1472 | 20040212 |
| | W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI | | | | |
| | RW: BW, GH, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | JP 2004263178 | A2 | 20040924 | JP 2004-34963 | 20040212 |
| | JP 2004263179 | A2 | 20040924 | JP 2004-34964 | 20040212 |
| PRAI | JP 2003-36738 | A | 20030214 | | |
| | JP 2003-36790 | A | 20030214 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|--|
| | WO 2004072053 | ICM | C07D263-60 |
| | | ICS | C07D307-77; C07D498-04; C07D498-06; C07D311-78; C07D491-06; C09B057-00; C09B057-12; C09K011-06 |
| | WO 2004072053 | ECLA | C07D263/60; C07D307/77B; C07D311/78; C07D498/04+307A+263A; C07D498/06+311A+263A; C09B057/00 |
| | JP 2004263178 | FTERM | 4C037/TA10; 4C056/AA01; 4C056/AB01; 4C056/AC02; 4C056/AD07; 4C056/AE02; 4C056/CA03; 4C056/CA05; 4C056/CA06; 4C072/AA01; 4C072/AA07; 4C072/BB02; 4C072/BB08; 4C072/CC01; 4C072/CC12; 4C072/EE03; 4C072/FF16; 4C072/GG08; 4C072/HH02; 4C072/UU04; 4C072/UU05; 4H056/DD15; 4H056/DD23; 4H056/EA13; 4H056/FA01 |

JP 2004263179 FTERM 3K007/AB04; 3K007/AB11; 3K007/BB06; 3K007/DB03

OS MARPAT 141:208581

AB The present invention relates to (i) novel heteropolycyclic compds. having specific structures, (ii) color-changing material compns. comprising a fluorescent coloring matter consisting of the heteropolycyclic compound and a binder, (iii) color-changing films made from the compns., (iv) coloring matters consisting of the compds., and (v) pigments or dyes containing the compds. The invention provides (i) color-changing material compns. which are not deteriorated in color-changing performance even after long-time service and are freed from the precipitation of coloring matters in storage which

results in failure, (ii) color-changing films made by using them, and (iii) novel heteropolycyclic compds., coloring matters, pigments or dyes, which can bring about the films. Thus, 2.00 g 4-[p-(Diethylamino)phenyl]-1,2-naphthoquinone and 0.73 g p-cyanobenzaldehyde were reacted at 80° for 10 min to give 0.59 g a heteropolycyclic compound, 0.072 g of which was mixed with a benzyl methacrylate-methacrylic acid copolymer 1.9, Aronix M 400 1.5, Araldite ECN 1299 0.20, 2-acetoxy-1-ethoxypropane 2.5, cyclohexanone 3.0, and Irgacure 907 0.035 g, applied on a glass plate, dried at 120° for 2 min, irradiated with an UV-ray, and heat-treated at 200° for 60 min to give a coating with good color retention when irradiated with a blue electroluminescent device having wavelength 440 nm.

ST heteropolycyclic compd pigment dye color change material compn

film; diethylaminophenylnaphthoquinone cyanobenzaldehyde reactant heterocyclic compd prep; Aronix Araldite heteropolycyclic compd acrylic binder compn coating

IT Acrylic polymers, uses
Polycarbonates, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(binders; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Phenolic resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(epoxy, novolak, blend with acrylic polymers; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Pigments, nonbiological
(hetero-polycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Polycyclic compounds
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(hetero; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Binders
Coating materials
Coloring materials
Dyes
Electroluminescent devices
Fluorescent dyes
Fluorescent substances
Photolithography
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Epoxy resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Epoxy resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(phenolic, novolak, blend with acrylic polymers; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Plastics, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(thermoplastics, binders; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT Plastics, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(thermosetting, binders; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(binder; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 37348-54-2, Araldite ECN 1299
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(blend with acrylic polymer; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 67653-78-5P, Aronix M 400 homopolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(blend with epoxy resin; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 81-88-9, Rhodamine B 989-38-8, Rhodamine 6G
RL: MOA (Modifier or additive use); USES (Uses)
(dye; heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 105-07-7, p-Cyanobenzaldehyde 521-24-4, Sodium 1,2-naphthoquinone-4-sulfonate 43141-69-1, m-(Dibutylamino)phenol
RL: RCT (Reactant); RACT (Reactant or reagent)
(hetero-polycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-67-9P 744216-74-8P 744216-76-0P 744216-77-1P
RL: IMF (Industrial manufacture); PREP (Preparation)
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-65-7P 744216-66-8P 744216-70-4P 744216-71-5P 744216-72-6P
744216-73-7P 744216-75-9P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-49-7P 744216-53-3P 744216-60-2P 744216-63-5P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 27775-58-2P, Aronix M 305 homopolymer 36446-02-3P, Aronix M 309 homopolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-50-0P 744216-51-1P 744216-52-2P 744216-54-4P 744216-56-6P
744216-57-7P 744216-58-8P 744216-59-9P 744216-61-3P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-69-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 744216-78-2
RL: PRP (Properties)
(heteropolycyclic compds. for coloring matters, pigments, dyes, color-changing material compns., and color-changing films)

IT 459-57-4, 4-Fluorobenzaldehyde 642-31-9, 9-Anthraldehyde

STN search for 10765,797

3029-19-4, 1-Pyrenecarbaldehyde 10031-82-0, p-Ethoxybenzaldehyde
34036-07-2, 3,4-Difluorobenzaldehyde 123135-53-5, 4-[p-
(Diethylamino)phenyl]-1,2-naphthoquinone 344590-80-3 744216-55-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(heteropolycyclic compds. for coloring matters, pigments, dyes,
color-changing material compns., and color-changing films)
IT 744216-48-6P
RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(intermediate; hetero-polycyclic compds. for coloring matters,
pigments, dyes, color-changing material compns., and color-changing
films)
IT 744216-64-6P 744216-68-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; heteropolycyclic compds. for coloring matters, pigments,
dyes, color-changing material compns., and color-changing films)

L15 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:333842 CAPLUS

DN 140:335208

ED Entered STN: 23 Apr 2004

TI Automated method and device for high throughput screening of nematodes

IN Gill, Matthew S.; Olsen, Anders; Lithgow, Gordon J.

PA Buck Institute, USA

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12N

CC 9-1 (Biochemical Methods)

Section cross-reference(s): 12

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | WO 2004033654 | A2 | 20040422 | WO 2003-US32066 | 20031009 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |

PRAI US 2002-417465P P 20021009

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|------|
| WO 2004033654 | ICM | C12N |
|---------------|-----|------|

AB This invention provides a high throughput survival assay, using uptake of a marker dye (e.g. a fluorescent dye) as a marker of death of a nematode. The assay permits high throughput screening of thousands of compds. possible. By the application of automated worm handling technol. we are able to accurately dispense nematodes into 384 well microtiter plates, at rates many thousand of times faster than previously possible. In addition, we have automated the anal. of survival by the use of a fluorometric plate reader that quantitates the degree of fluorescence within each well. A COPAS BIOSORT

STN search for 10765,797

automated worm handling device was used to dispense individual *Caenorhabditis elegans* nematodes into microtiter plate wells containing Sytox fluorescent dye for detection of nematode viability. A fluorometric plate reader was used to quantify fluorescence.

ST automated app high throughput screening nematode; fluorescent dye automated nematode handling app screening; fluorometric plate reader automated device nematode screening

IT *Escherichia coli*
(OP50; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Materials handling
(apparatus; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Analysis
Process automation
(automated anal.; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Aging, animal
Bioassay
Caenorhabditis
Caenorhabditis elegans
Dyes
Fluorescence
Fluorescent dyes
Fluorescent substances
High throughput screening
Microtiter plates
Mutation
Nematocides
Nematoda
Oxidative stress, biological
Statistical analysis
Test kits
(automated method and device for high throughput screening of the activity of agents on nematodes)

IT Dispensing apparatus
(automated, COPAS BIOSORT device; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Analytical apparatus
Apparatus
(automated; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Eukaryota
(detectable label excluded from live cells of; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Cell membrane
(detectable label penetrating compromised; automated method and device for high throughput screening of the activity of agents on nematodes)

IT High throughput screening
(drug; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Staining, biological
(fluorescent; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Culture media
(for nematodes; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Stress, animal

STN search for 10765,797

Temperature effects, biological
(heat; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Drug screening
(high throughput; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(nematodes with transgene or knock out; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Transgene
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(nematodes with; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Death
(of nematode, marker dye detecting; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Fluorometry
(plate reader; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Nematoda
(thermotolerant; automated method and device for high throughput screening of the activity of agents on nematodes)

IT Biological transport
(uptake, of detectable label as marker of nematode death; automated method and device for high throughput screening of the activity of agents on nematodes)

IT 25535-16-4, Propidium iodide 194100-76-0, Sytox green 324767-53-5, Sytox orange 396077-00-2, Sytox blue
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(as detectable label for determining viability of nematodes; automated method and device for high throughput screening of the activity of agents on nematodes)

IT 4685-14-7, Paraquat
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
(automated method and device for high throughput screening of the activity of agents on nematodes)

IT 81065-76-1, Euk-134
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(automated method and device for high throughput screening of the activity of agents on nematodes)

IT 154447-36-6, LY-294002
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(thermotolerance induction in nematodes after treatment with; automated method and device for high throughput screening of the activity of agents on nematodes)

L15 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:689835 CAPLUS
DN 140:317563
ED Entered STN: 04 Sep 2003
TI An automated high-throughput assay for survival of the nematode *Caenorhabditis elegans*
AU Gill, Matthew S.; Olsen, Anders; Sampayo, James N.; Lithgow, Gordon J.
CS Buck Institute, Novato, CA, USA

STN search for 10765,797

SO Free Radical Biology & Medicine (2003), 35(6), 558-565
CODEN: FRBMEH; ISSN: 0891-5849
PB Elsevier Science Inc.
DT Journal
LA English
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 12
AB Many genetic or environmental manipulations that extend life span in the nematode *Caenorhabditis elegans* (*C. elegans*) also enhance survival following acute stresses such as oxidative damage and thermal stress. This coupling of stress response and aging mechanisms has proved a useful tool in identifying new genes that affect the aging process without the need for performing lengthy life span analyses. Therefore, it is likely that this approach may also be applied to the identification of pharmacol. agents that extend life span through enhanced resistance to oxygen radicals or other stressors. To facilitate high-throughput drug screens in the nematode, we have developed a microtiter plate survival assay that uses uptake of the fluorescent dye SYTOX green as a marker of nematode death. An increase in throughput compared with the conventional survival assay was achieved by combining automated worm-handling technol. with automated real-time fluorescence detection. We have validated this assay by examining survival during acute heat stress and protection against oxidative stress with the superoxide dismutase/catalase mimetic Euk-134. We propose that this novel method of survival anal. will accelerate the discovery of new pharmacol. interventions in aging and oxidative stress.
ST highthroughput survival assay nematode *Caenorhabditis*
IT *Caenorhabditis elegans*
Eubacteria
 Fluorometry
 Microtiter plates
 Nematoda
 Oxidative stress, biological
 (automated high-throughput assay for survival of nematode
 Caenorhabditis elegans)
IT Analysis
 (automated high-throughput; automated high-throughput assay for
 survival of nematode *Caenorhabditis elegans*)
IT Stress, animal
 (heat; automated high-throughput assay for survival of
 nematode *Caenorhabditis elegans*)
IT 194100-76-0, SYTOX green
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (automated high-throughput assay for survival of nematode
 Caenorhabditis elegans)
IT 9001-05-2, Catalase 9054-89-1, Superoxide dismutase 81065-76-1,
Euk-134
RL: BSU (Biological study, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
 (automated high-throughput assay for survival of nematode
 Caenorhabditis elegans)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Fabian, T; Mech Ageing Dev 1995, V83, P155 CAPLUS
(3) Harrington, L; Mech Ageing Dev 1988, V43, P71 CAPLUS
(4) Holzenberger, M; Nature 2003, V421, P182 CAPLUS
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(6) Kang, H; Proc Natl Acad Sci USA 2002, V99, P838 CAPLUS
(7) Link, C; Cell Stress Chaperones 1999, V4, P235 CAPLUS

STN search for 10765,797

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- (23) Yokoyama, K; FEBS Lett 2002, V516, P53 CAPLUS

L15 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:646664 CAPLUS

DN 139:188339

ED Entered STN: 19 Aug 2003

TI Coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors

IN Yukawa, Shigeo; Sato, Masaki

PA Kiwa Chemical Industry Co., Ltd., Japan; Nisshin Steel Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-00

ICS B05D001-36; B05D005-00; B05D005-04; B05D007-24; B32B015-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 55

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2003231346 | A2 | 20030819 | JP 2002-32743 | 20020208 |
| PRAI | JP 2002-32743 | | 20020208 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|--|
| JP 2003231346 | ICM | B41M005-00 |
| | ICS | B05D001-36; B05D005-00; B05D005-04; B05D007-24; B32B015-08 |

AB The metal plate has a laminate of ≥ 1 releasable temporal imaging layer capable to be printed and ≥ 1 base layers, wherein (i) the temporal imaging layer on the side being not in contact with the base layer is formed from a resin composition which absorbs sublimable dye-containing inks and does not cause blocking upon heat applied for sublimating the sublimable dyes to diffuse into the base layer for coloring, (ii) the base layer on the side being in contact with the base layer is formed from a glossy resin which does not have affinity to the sublimable dyes, and (iii) the temporal imaging layer is printed with sublimable dye-containing inks and subsequently heated to transfer the images by dye sublimation and diffusion into the base layer. Thus, a galvanized steel plate was pretreated for coating, applied with Crisvon NY 331 (polycarbonate-polyurethane), dried, applied with a F-containing resin coating Fluonate K 703 (HO-containing fluorooolefin polymer), Burnock DN 950 (polyisocyanate), and UV

absorbers, dried, applied with Patelacol K 510P containing 5.2% glass beads, , dried to form a temporal imaging layer, and printed with sublimable dye-containing ink-jet inks. The obtained test pieces were heated at 170° in hot dry air or heated at 150° in vacuo for sublimation of the dyes and transfer to the base layers. After these thermal treatments, the temporal imaging layer could be peeled off by using hands without breakage, leaving vivid print images on the base layer.

ST sublimation transfer printing coated metal plate

IT Alkenes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoro, polymers, isocyanate-crosslinked, surface layer of base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polycarbonate-, base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Polycarbonates, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyurethane-, base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Transfer printing
(sublimation; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Galvanized steel
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(temporal imaging layer; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 136362-19-1, Crisvon NY 331
RL: TEM (Technical or engineered material use); USES (Uses)
(base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 494870-36-9P, Burnock DN 950-Fluonate K 703 copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surface layer of base coat; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 577777-94-7P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surface layer on base coating; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 165455-26-5, Ethyl vinyl ether-tetrafluoroethylene-trimethoxysilylethyl vinyl ether-vinyl pivalate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)

STN search for 10765,797

(surface layer on base coating; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 495390-87-9, Patelacol K 510P

RL: TEM (Technical or engineered material use); USES (Uses)
(temporal imaging layer, containing glass beads; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

IT 109766-98-5, MZ 100 (magnetic powder) 201687-82-3, Fluonate FEM 600
330574-11-3, Patelacol IJ 150 455311-39-4, Patelacol IJ 70

RL: TEM (Technical or engineered material use); USES (Uses)
(temporal imaging layer; coated metal plate with sublimation-transfer temporal imaging layer for advertisement, decorative materials, and doors)

L15 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:214649 CAPLUS

DN 138:216851

ED Entered STN: 19 Mar 2003

TI Long-acting insecticidal heat fumigation mat having pulp or plastic plate partially covering the bottom of the mat and fumigation method

IN Manamide, Yoshihiro; Katsuda, Sumio

PA Dainippon Jochugiku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A01N025-34

ICS A01M001-20; A01N025-18; A01N053-02; A01N053-04

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003081708 | A2 | 20030319 | JP 2001-261151 | 20010830 |
| PRAI | JP 2001-201390 | A | 20010702 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|--|
| JP 2003081708 | ICM | A01N025-34 |
| | | ICS A01M001-20; A01N025-18; A01N053-02; A01N053-04 |

AB The insecticidal pulp mat (length 20-24 mm, width 32-38 mm, and thickness 2.0-3.0 mm), which is applied to a conventional elec. fumigation apparatus to show the insecticidal effect continuously over 5 days, has a pulp or plastic plate which has length roughly the same as that of the mat and width of 0.3-0.6 times that of the mat and shows thermal conductivity ≤ 0.30 Wm-1K-1 at 300 K and is fixed to the mat at the short side with a clip, and contains (a) ≥ 50 mg pyrethroid insecticide showing vapor pressure $\geq 4.0 + 10^{-6}$ mmHg at 20° and (b) volatilization controller at its weight ratio to the pyrethroid ≥ 0.3 . Partially laminating the mat with the pulp or plastic plate substantially narrows surface area of a heating plate of the fumigation apparatus and prolongs volatilization period. A bakelite plate (22 mm + 17.5 mm + 2.2 mm, thermal conductivity 0.18 Wm-1K-1 at 300 K) was fixed on a pulp mat (22 mm + 35 mm + 2.8 mm) with a clip and the mat was impregnated with kerosene containing Pynamin D-forte 250, piperonyl butoxide 150, stabilizer 20 mg, and blue dye to give an insecticidal mat. The mat was placed on an elec. fumigation apparatus heated at 180° to show sufficient insecticidal

STN search for 10765,797

action on *Culex tritaeniorhynchus* for 5 days.

ST elec fumigation insecticidal mat partial plastic plate
lamination; volatilization controller elec fumigation insecticidal mat;
furamethrin elec fumigation mat partial bakelite plate
lamination

IT Insecticides
(fumigants; long-acting rectangular insecticidal elec. heat
fumigation mat partially laminated with pulp or plastic plate
to prolong volatilization period)

IT Fumigants
(insecticidal; long-acting rectangular insecticidal elec. heat
fumigation mat partially laminated with pulp or plastic plate
to prolong volatilization period)

IT Fumigation
(long-acting rectangular insecticidal elec. heat fumigation
mat partially laminated with pulp or plastic plate to prolong
volatilization period)

IT Epoxy resins, biological studies
Fluoro rubber
Phenolic resins, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(long-acting rectangular insecticidal elec. heat fumigation
mat partially laminated with pulp or plastic plate to prolong
volatilization period)

IT Cork
(plate; long-acting rectangular insecticidal elec.
heat fumigation mat partially laminated with pulp or plastic
plate to prolong volatilization period)

IT Pyrethrins
RL: BSU (Biological study, unclassified); BUU (Biological use,
unclassified); BIOL (Biological study); USES (Uses)
(pyrethroids; long-acting rectangular insecticidal elec. heat
fumigation mat partially laminated with pulp or plastic plate
to prolong volatilization period)

IT Polysiloxanes, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use,
unclassified); BIOL (Biological study); USES (Uses)
(volatilization controller; long-acting rectangular insecticidal elec.
heat fumigation mat partially laminated with pulp or plastic
plate to prolong volatilization period)

IT 584-79-2, Esbiothrin 23031-36-9, Prallethrin 23031-38-1, Pynamin
D-forte 118712-89-3, Transfluthrin
RL: BSU (Biological study, unclassified); BUU (Biological use,
unclassified); BIOL (Biological study); USES (Uses)
(long-acting rectangular insecticidal elec. heat fumigation
mat partially laminated with pulp or plastic plate to prolong
volatilization period)

IT 9003-07-0, Polypropylene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(long-acting rectangular insecticidal elec. heat fumigation
mat partially laminated with pulp or plastic plate to prolong
volatilization period)

IT 13358-11-7, Synepirin 500
RL: BSU (Biological study, unclassified); BUU (Biological use,
unclassified); BIOL (Biological study); USES (Uses)
(volatilization controller; long-acting rectangular insecticidal elec.
heat fumigation mat partially laminated with pulp or plastic
plate to prolong volatilization period)

STN search for 10765,797

IT 51-03-6, Piperonyl butoxide 123-95-5, Butyl stearate
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use);
BIOL (Biological study); USES (Uses)
(volatilization controller; long-acting rectangular insecticidal elec.
heat fumigation mat partially laminated with pulp or plastic
plate to prolong volatilization period)

L15 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:214648 CAPLUS

DN 138:216850

ED Entered STN: 19 Mar 2003

TI Long-acting insecticidal heat fumigation mat having clip for
holding one side apart from heating plate and fumigation method

IN Manamide, Yoshihiro; Katsuta, Sumio

PA Dainippon Jochugiku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A01N025-34

ICS A01N025-10; A01N025-18; A01N053-02; A01N053-04; A01M001-20

CC 5-4 (Agrochemical Bioregulators)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003081707 | A2 | 20030319 | JP 2001-261150 | 20010830 |
| PRAI | JP 2001-202632 | A | 20010703 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|------------|-------|---|
| JP | 2003081707 | ICM | A01N025-34 |
| | | ICS | A01N025-10; A01N025-18; A01N053-02; A01N053-04; A01M001-20 |

AB The insecticidal pulp mat (length 20-24 mm, width 32-38 mm, and thickness 2.0-3.0 mm), which is applied to a conventional elec. fumigation apparatus to show the insecticidal effect continuously over 5 days, has a clip having 2.0-4.0 mm-thick mount at one short side of the mat so that a gap gradually widening from the free side of the mat to the clipped side is formed between the mat and a heating plate of the fumigation apparatus and contains ≥ 50 mg pyrethroid insecticide showing vapor pressure $\geq 4 + 10^{-6}$ mmHg at 20° and volatilization controller at its weight ratio to the pyrethroids ≥ 0.3 . Two clips having 2.5-mm-thick mount were attached to 2 corners of the short side of a pulp mat (22 mm + 35 mm + 2.8 mm) and the mat was impregnated with kerosene containing Pynamin D-forte 250, piperonyl butoxide 150, stabilizer 20 mg, and blue dye to give an insecticidal mat. The mat was placed on an elec. fumigation apparatus heated at 180° to show sufficient insecticidal action on Culex tritaeniorhynchus for 5 days.

ST elec fumigation insecticidal mat gap forming clip; volatilization controller elec fumigation insecticidal mat; furamethrin elec fumigation mat side clip

IT Fluoro rubber

Phenolic resins, biological studies

Polycarbonates, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(clip; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Insecticides

STN search for 10765,797

(fumigants; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Fumigants
(insecticidal; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Fumigation
(long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Pyrethrins
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(pyrethroids; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT Polysiloxanes, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(volatilization controller; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT 9003-07-0, Polypropylene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(clip; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT 584-79-2, Esbiothrin 23031-36-9, Prallethrin 23031-38-1, Pynamin D-forte 118712-89-3, Transfluthrin
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT 13358-11-7, Synepirin 500
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(volatilization controller; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

IT 51-03-6, Piperonyl butoxide 123-95-5, Butyl stearate
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(volatilization controller; long-acting rectangular insecticidal elec. heat fumigation mat having clip for holding one short side apart from heating plate to prolong volatilization period)

L15 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:777824 CAPLUS
DN 137:302264
ED Entered STN: 11 Oct 2002
TI Method and apparatus for textile ink jet printing
IN Codos, Richard N.; Collan, William W.; Comerford, Robert B.; Quattrociocchi, Angelo; Badovinac, Milan
PA L & P Property Management Company, USA
SO PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DT Patent

STN search for 10765,797

LA English
IC ICM B41J002-01
 ICS B41J002-165; C08J007-04
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 40

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2002078958 | A1 | 20021010 | WO 2002-US9963 | 20020328 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2397105 | AA | 20010719 | CA 2001-2397105 | 20010109 |
| | JP 2003519511 | T2 | 20030624 | JP 2001-551267 | 20010109 |
| | US 2001038408 | A1 | 20011108 | US 2001-823268 | 20010330 |
| | US 6467898 | B2 | 20021022 | | |
| | US 2002005870 | A1 | 20020117 | US 2001-824517 | 20010402 |
| | US 6702438 | B2 | 20040309 | | |
| | US 2002044188 | A1 | 20020418 | US 2001-932427 | 20010817 |
| | US 6726317 | B2 | 20040427 | | |
| | CA 2442429 | AA | 20021010 | CA 2002-2442429 | 20020328 |
| | CA 2442500 | AA | 20021010 | CA 2002-2442500 | 20020328 |
| | EP 1381515 | A1 | 20040121 | EP 2002-719393 | 20020328 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | WO 2002079559 | A3 | 20040325 | WO 2002-US9700 | 20020328 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1419294 | A2 | 20040519 | EP 2002-717734 | 20020328 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2004532750 | T2 | 20041028 | JP 2002-577201 | 20020328 |
| | JP 2004533546 | T2 | 20041104 | JP 2002-577957 | 20020328 |
| PRAI | US 2001-823268 | A | 20010330 | | |
| | US 2001-824517 | A | 20010402 | | |
| | US 2001-932427 | A | 20010817 | | |
| | US 2001-327622P | P | 20011005 | | |
| | US 2001-333319P | P | 20011126 | | |
| | US 1999-390571 | A2 | 19990903 | | |
| | US 2000-480094 | A | 20000110 | | |
| | US 2000-649471 | A | 20000828 | | |
| | WO 2000-US24226 | W | 20000901 | | |
| | WO 2001-US596 | W | 20010109 | | |
| | US 2001-822794 | A | 20010330 | | |

| | | |
|----------------|---|----------|
| WO 2002-US9700 | W | 20020328 |
| WO 2002-US9963 | W | 20020328 |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|--|
| WO 2002078958 | ICM | B41J002-01 |
| | ICS | B41J002-165; C08J007-04 |
| US 2001038408 | ECLA | B41J002/01; B41J011/00C1; D05B011/00; D06P005/00J; D06P005/20C; B41J003/407T; B41J011/00C |
| US 2002005870 | ECLA | B41J002/01; B41J003/407T; B41J011/00C; B41J011/00C1; D05B011/00; D06P005/00J; D06P005/20C |
| US 2002044188 | ECLA | B41J002/01; D06P005/00J; D06P005/20C; B41J003/407T; B41J011/00C; B41J011/00C1; D05B011/00 |
| JP 2004532750 | FTERM | 2C056/EA07; 2C056/EA13; 2C056/EA16; 2C056/EC08; 2C056/EC11; 2C056/EC14; 2C056/EC31; 2C056/EC37; 2C056/EC77; 2C056/FA10; 2C056/FB03; 2C056/FC02; 2C056/HA44; 2C056/HA46; 2C056/JB04; 3F101/AB01; 3F101/AB09; 3F101/FB00; 3F101/FB17; 3F101/FC11; 3F101/LA06; 3F101/LB11; 4H057/AA02; 4H057/DA01; 4H057/DA34; 4H057/GA06; 4H057/JA02; 4H057/JB03 |
| JP 2004533546 | FTERM | 3B150/AA01; 3B150/AA05; 3B150/AA27; 3B150/BA01; 3B150/CE01; 3B150/CE21; 3B150/CE23; 3B150/CE24; 3B150/EB09; 3B150/EE01; 3B150/EE07; 3B150/EH06; 3B150/EH15; 3B150/JA04; 3B150/JA33; 3B150/LA34; 3B150/LA63; 3B150/LA67; 3B150/LA71; 3B150/LA73; 3B150/MA00; 3B150/MA03; 3B150/NB00; 3B150/NB09; 3B150/NC03; 4L049/AA17; 4L049/BA39; 4L049/DA23; 4L049/EA06; 4L049/FA01 |

AB Ink jet printing on large area substrates such as wide width textile webs, large panel and other extended area substrates at high speed and com. scale, is achieve via a specially designed ink jet printer and uv-curable ink. The printheads are driven by linear servo motors across a bridge that extends across the substrate. The timing of the jetting of the ink is coordinated with the motion of the printheads, so that the heads can be rapidly moved and the ink can be jetted while the printheads are accelerating or decelerating as they move on the bridge. Preferably, UV light curable ink is jetted and first partially cured with UV light and then subjected to heating to more completely reduce uncured monomers of the ink on the substrate. Preferably, the heat is applied by contacting the substrate with a heated plate. Ink jet printing is provided using UV light curable or other curable composition or stable or other printable substance. In certain embodiments the UV ink has a dye-component therein. The ink is jetted onto a substrate, the composition is cured, then heated to set the dye. Sublimation dye-based UV ink printing onto polyester is preferred. A release layer of protective material such as a TEFILON film or sheet, covers a substrate support. A porous substrate to be printed, such as a textile material, is supported on or above the support. Ink is jetted onto the substrate, with some of the ink passing through pores in the substrate and landing on the protective material. UV curable ink is preferably used and is exposed by UV light from a UV light curing head, which solidifies the ink on the substrate. The UV curing light has a long enough focal length to focus on the surface of the substrate and also, where it passes through pores in the substrate, on ink on the protective material, thereby solidifying the ink on the protective material. When the substrate is removed from the support, the solidified ink on the protective material may be wiped from the protective material. The protective material may be a coating on the support over which the substrate slides or a belt that moves with the substrate. A textile substrate may be preconditioned by singeing or shaving to remove fuzz from the fabric that could clog the

STN search for 10765,797

printheads. A printhead cleaning station is also provided.
ST textile inkjet printing printer uv curable ink
IT Textile printing
 (ink-jet, large area; method and apparatus)
IT Inks
 (jet-printing, uv-curable; method and apparatus for textile ink jet
 printing)
IT Textiles
 (method and apparatus for ink jet printing)
IT Ink-jet printer heads
Ink-jet printers
Ink-jet printing
 (method and apparatus for textile ink jet printing)
IT Fluoropolymers, uses
Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
 (method and apparatus for textile ink jet printing)
IT Dyes
 (sublimable; method and apparatus for textile ink jet printing)
IT Ink-jet printing
 (textile, large area; method and apparatus)
IT 9002-84-0, Teflon
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
 (method and apparatus for textile ink jet printing)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Codos; US 6312123 B1 2001 CAPLUS
(2) Eade; US 6302514 B1 2001
(3) Hoffman; US 4293233 A 1981
(4) Martin; US 6220691 B1 2001
(5) Paulson; US 6270858 B1 2001 CAPLUS
(6) Szyszko; US 5809877 A 1998
(7) Wen; US 6092890 A 2000 CAPLUS

L15 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:553400 CAPLUS
DN 137:132119
ED Entered STN: 26 Jul 2002
TI IR-sensitive direct-imaging positive-working lithographic plate
precursor
IN Oda, Akio
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-004
 ICS G03F007-004; B41N001-14; G03F007-00; G03F007-032; G03F007-039;
 G03F007-095
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
----- ----- ----- ----- -----
PI JP 2002207288 A2 20020726 JP 2001-2363 20010110
PRAI JP 2001-2363 20010110
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2002207288 ICM G03F007-004
ICS G03F007-004; B41N001-14; G03F007-00; G03F007-032;
G03F007-039; G03F007-095

AB The title lithog. plate precursor has a heat-sensitive layer, which contains a heat-sensitive water-insol. alkali solubilizable resin, an IR-absorbing dye, a F-containing polymer, on a hydrophilic support, wherein the heat-sensitive layer contains ≥ 1.4 % F-containing polymer based on the total solid component and has ≤ 1.4 g/cm² coating amount. The lithog. plate precursor shows the wide development latitude.

ST IR sensitive imaging pos working lithog plate precursor

IT Lithographic plates
(IR-sensitive direct-imaging pos.-working lithog. plate precursor)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(fluoropolymer for IR-sensitive direct-imaging pos.-working lithog. plate precursor)

IT 115515-73-6, Defensa MCF 312 137462-24-9, Megafac F 176
RL: TEM (Technical or engineered material use); USES (Uses)
(fluoropolymer for IR-sensitive direct-imaging pos.-working lithog. plate precursor)

L15 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:82278 CAPLUS

DN 136:136209

ED Entered STN: 31 Jan 2002

TI Polyester fiber structures with good stretchability and lasting odor absorption and antibacterial properties and soiling resistance manufactured by treating structures of polyester fibers consisting mainly poly(trimethylene terephthalate) with mixtures containing silicon titanium oxide and alkylsilicate polymers, silicones and/or fluoropolymers

IN Hirata, Masayuki; Matsuda, Isao; Honda, Hidenobu

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M011-77

ICS D01F006-62; D01F008-14; D02G001-02; D03D015-00; D04B001-16;
D04B021-00; D06M011-46; D06M015-643

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2002030568 | A2 | 20020131 | JP 2000-213864 | 20000714 |
| PRAI | JP 2000-213864 | | 20000714 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|--|
| JP 2002030568 | ICM | D06M011-77 |
| | ICS | D01F006-62; D01F008-14; D02G001-02; D03D015-00; D04B001-16; D04B021-00; D06M011-46; D06M015-643 |

AB The polyester fiber structures (A) comprise polyester fibers mainly consisting of poly(trimethylene terephthalate) (I) and essentially have the surface having mixts. containing silicon titanium oxide (II) and alkyl silicate polymers, silicones, and/or fluoropolymers, or the polyester fiber structures comprise A structures having the polyester fibers consisting of a component comprising mainly I and a polyester

component affixed in the fiber length direction in a side-by-side form, or the polyester fiber structure comprise A structures having the polyester fibers exhibiting temperature (T) for maximum heat shrinkage force $\geq 110^\circ$ and maximum heat shrinkage force (F) ≥ 0.25 cN/dtex, or the polyester fiber structures comprise A structures having the polyester fibers exhibiting crimp stretch under load $\geq 15\%$, or the polyester fiber structures comprise A structures having II content 0.05-30% (on fiber structure). The fiber structures are useful for clothing and curtains. I with intrinsic viscosity (IV) 1.18 and PET with IV 0.60 were together melt spun at 280° and 50:50 weight ratio to form side-by-side bicomponent fibers, drawn to draw ratio 3.0 at hot roll temperature 85° and hot plate temperature 145° to give 55-dtex/24-filament yarns exhibiting T 130° , F 0.33 cN/dtex, and crimp stretch under load 20.5%. A woven fabric of the spun filament yarns was prepared, relaxed in H₂O at 110° , heat-set in a tenter at 190° , treated with an alkali solution to cause weight loss of the fabric 15%, dyed with a disperse dye at 120° , treated with an aqueous dispersion containing CLG-520 (alkyl silicate polymer) 0.5, BY 22-826 (silicone) 2.0, AG-710 (fluoropolymer) 5.0, and II (TR-T 2; average particle diameter 0.3 μm) 0.8%, and squeezed to pick up 80%. The treated fabric was dried and heat-treated 1 min at 180° to give a fabric exhibiting stretch 20 and 32%, resp., in the warp and filling directions and showing NH₃ (g) absorption 99% on sealing 10 g sample in a container with NH₃ (g) content 200 ppm for 1 h and exhibiting bacteria resistance (log B/A; passing value ≥ 2.2) 5.2 initially and 4.5 after 10 washings and showing good soiling resistance.

ST polytrimethylne terephthalate PET bicomponent fiber fabric stretchable antibacterial deodorant; polyester fiber fabric antibacterial deodorant soiling resistant; silicon titanium oxide deodorant antibacterial finish polyester fabric; alkyl silicate polymer binder polyester fabric deodorant antibacterial finishing; silicone binder polyester fabric deodorant antibacterial finishing; fluoropolymer binder polyester fabric deodorant antibacterial finishing; photocatalyst silicon titanium oxide deodorant antibacterial finish polyester fabric; clothing polyester fabric antibacterial deodorant soiling resistant; curtain polyester fiber fabric antibacterial deodorant soiling resistant

IT Polysiloxanes, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(BY 22-826, binders; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Odor and Odorous substances

(absorbents; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Fluoropolymers, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(binders; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Household furnishings

(curtains; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders for)

IT Polyester fibers, uses

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC

(Process); USES (Uses)
(fabrics; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Polyesters, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber, bicomponent with poly(trimethylene terephthalate); polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester with mixts. of silicon titanium oxide and polymer binders)

IT Absorbents
(for odor; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Antibacterial agents
Deodorants
Photolysis catalysts
Soilproofing
(polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT Clothing
(polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders for)

IT Polyesters, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester with mixts. of silicon titanium oxide and polymer binders)

IT Polyester fibers, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(terephthalic acid-trimethylene glycol, bicomponent with PET fiber; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT 681-84-5, CLG 520 42610-70-8, Asahiguard AG 710
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(binder; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating fabrics of fibers from poly(trimethylene terephthalate) with mixts. of silicon titanium oxide and polymer binders)

IT 26546-03-2, Terephthalic acid-trimethylene glycol copolymer, sru 26590-75-0, Poly(trimethylene terephthalate)
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber, bicomponent with PET; polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester fabrics with mixts. of silicon titanium oxide and polymer binders)

IT 25038-59-9, Poly(ethylene terephthalate), uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP

STN search for 10765,797

(Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber, bicomponent with poly(trimethylene terephthalate); polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating polyester with mixts. of silicon titanium oxide and polymer binders)
IT 52337-09-4, Silicon titanium oxide 347859-02-3, TR-T 2
RL: CAT (Catalyst use); MOA (Modifier or additive use); USES (Uses)
(polyester fabrics with stretchability and lasting odor absorption and antibacterial properties manufactured by treating fabrics of fibers from poly(trimethylene terephthalate) with mixts. of silicon titanium oxide and polymer binders)

L15 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:704896 CAPLUS
DN 131:307662
ED Entered STN: 04 Nov 1999
TI Method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate
IN Mitsuhashi, Masato
PA Hitachi Chemical Co., Ltd., Japan; Hitachi Chemical Research Center, Inc.
SO U.S., 21 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM C12Q001-68
NCL 435006000
CC 3-1 (Biochemical Genetics)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI US 5976797 | A | 19991102 | US 1996-772150 | 19961220 |
| PRAI US 1996-772150 | | 19961220 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|---|
| US 5976797 | ICM | C12Q001-68 |
| | NCL | 435006000 |
| US 5976797 | ECLA | C12Q001/68D2+525/173; C12Q001/68D2+563/173; C12Q001/68D2+565/501 |

AB A method for quantifying total mRNA in a biol. sample containing RNA such as crude cell lysates containing cytosolic mRNA, which method comprises the steps of: (a) incubating the sample with an oligo-(dT)- or poly-U-immobilized microtiter plate; (b) washing non-hybridized components from the microtiter plate; (c) labeling the hybridized mRNA with a photometric nucleic-acid dye; (d) measuring the amount of label captured on the microtiter plate; (e) heat-denaturing the labeled mRNA; (f) washing the denatured mRNA from the microtiter plate; and (g) measuring the amount of label remaining on the microtiter plate; and (h) correlating the amount of the measured label (captured label minus remaining label) with the quantity of total mRNA present in the sample, thereby easily measuring the total mRNA without the influence of rRNA or tRNA and without radioactive dyes, which method can be adapted to chemosensitivity tests.

ST mRNA polyA oligonucleotide immobilized microtiter plate
IT Cytoplasm
(cytosol; method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)
IT Cell
Denaturation enthalpy

STN search for 10765,797

Dyes

Fluorometry

 Immobilization, biochemical

 Microtiter plates

 Nucleic acid hybridization

 Washing

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT RNA

 RL: AMX (Analytical matrix); ANST (Analytical study)

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT mRNA

 RL: ANT (Analyte); ANST (Analytical study)

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT Oligonucleotides

 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT Nucleic acids

 RL: ARU (Analytical role, unclassified); ANST (Analytical study)

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT rRNA

 RL: ARU (Analytical role, unclassified); ANST (Analytical study)

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT tRNA

 RL: ARU (Analytical role, unclassified); ANST (Analytical study)

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT 50-89-5, Thymidine, uses 24937-83-5, Poly(A) 27416-86-0, Poly-U 143413-84-7, Toto-1 143413-85-8, Yoyo-1 166196-17-4, Toto-3

 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

IT 7440-62-2D, Vanadium, complex with ribonucleotides, analysis

142298-75-7, Rnase inhibitor

 RL: ARU (Analytical role, unclassified); ANST (Analytical study)

 (method for quantifying total mRNA with poly(A)-complementary oligonucleotide-immobilized microtiter plate)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Shroder; Biochemistry 1990, V29, P2368

L15 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1977:125775 CAPLUS

DN 86:125775

ED Entered STN: 12 May 1984

TI Heat-resistant color penetrants for nondestructive testing of metals

IN Molina, Orlando G.

PA Rockwell International, USA

SO Ger. Offen., 34 pp.

 CODEN: GWXXBX

DT Patent

LA German

IC C09K003-00

CC 56-7 (Nonferrous Metals and Alloys)

FAN.CNT 13

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | DE 2622997 | A1 | 19761209 | DE 1976-2622997 | 19760522 |
| | US 4049568 | A | 19770920 | US 1975-580442 | 19750523 |
| | CA 1045529 | A1 | 19790102 | CA 1976-252416 | 19760513 |
| | GB 1554185 | A | 19791017 | GB 1976-20303 | 19760517 |
| | FR 2311835 | A1 | 19761217 | FR 1976-15551 | 19760521 |
| | FR 2311835 | B3 | 19790216 | | |
| PRAI | US 1975-580442 | A | 19750523 | | |
| | US 1974-444432 | A2 | 19740221 | | |
| | US 1974-444433 | A2 | 19740221 | | |
| | US 1974-521730 | A2 | 19741107 | | |
| | US 1974-535262 | A2 | 19741223 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
| DE 2622997 | IC | C09K003-00 |

AB Surface cracks and voids were traced by a heat-resistant, water-removable, and biodegradable penetrating fluorescent composition. The fluorescent composition comprises a dye, a liquid surfactant, and SiO₂. A preferred surfactant is a mixture of ethoxylated linear secondary aliphatic alcs. with 3-12 moles of ethylene oxide. After removing the excess of the dye-surfactant- SiO₂ composition, the surface is examined by using a fluorescent excitation source to make visible the cracks and voids. Thus, a gel was prepared containing 5 volume parts SiO₂ and 1 volume part of a mixture of

Tergitol 15-S-5 [37224-39-8] (surfactant), Calcofluor White RW [12224-04-3] and Fluorol 7 GA [12226-96-9] (fluorescent dyes), the ratio Tertigol: Calcofluor: Fluorol being 100:5:1.5. An Al plate with microcracks was heated to 300°F and brushed with the gel. The excess of the gel was removed from the surface with water without removing the gel from the microcracks. The surface was air-dried and the microcracks were observed under UV irradiation

ST aluminum crack tracing fluorescence; dye penetrant crack void; chromium plating brass

IT Testing of materials

(for surface cracks and voids, heat-resistant color penetrants for)

IT Dyes

(penetrant comps. containing, for surface crack detection in metals)

IT Metals, properties

RL: PRP (Properties)

(surface cracks in, detection by color penetrants)

IT Alcohols

RL: USES (Uses)

(C11-15-secondary, ethoxylated, color penetrant composition containing, for crack detection in metal surface)

IT 12597-71-6, uses and miscellaneous

RL: USES (Uses)

(chromium coatings on, crack detection in, by color penetrants)

IT 7440-47-3, uses and miscellaneous

RL: USES (Uses)

(coatings, on brass, crack detection in, by color penetrants)

IT 12627-03-1

RL: USES (Uses)

(color penetrant composition containing, for crack detection in metal surface)

IT 7631-86-9, properties 8066-05-5 19125-99-6

RL: PRP (Properties)

STN search for 10765,797

(color penetrant composition containing, for crack detection in metal
surface)
IT 7429-90-5, properties
RL: PRP (Properties)
(surface cracks in, detection by color penetrants)

=> d his

(FILE 'HOME' ENTERED AT 15:49:50 ON 15 MAR 2005)

FILE 'CAPLUS' ENTERED AT 15:50:01 ON 15 MAR 2005

L1 637015 S INFRARED OR IR OR INFRA RED
L2 7711 S L1 AND DYE
L3 309 S L2 AND FLUORO?
L4 10 S L3 AND PERFLUORO?
L5 0 S L4 NOT L3
L6 44388 S LITHOGRAPH? OR PLANOGRAPH?
L7 6 S L6 AND L3
L8 0 S L4 AND L6
L9 11 S L3 AND PLATE
L10 6 S L9 NOT L6
L11 38550 S HEAT AND PLATE
L12 528 S L11 AND DYE
L13 12 S L12 AND FLUORO?
L14 1 S L12 AND PERFLUORO?
L15 13 S L13 OR L14

=> $\log y$

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 105.30 | 105.51 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -18.25 | -18.25 |

STN INTERNATIONAL LOGOFF AT 15:53:44 ON 15 MAR 2005

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PASSWORD :

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 01 New pricing for the Save Answers for SciFinder Wizard within
STN Express with Discover!

STN search for 10765,797

NEWS 4 OCT 28 KOREPAT now available on STN
NEWS 5 NOV 30 PHAR reloaded with additional data
NEWS 6 DEC 01 LISA now available on STN
NEWS 7 DEC 09 12 databases to be removed from STN on December 31, 2004
NEWS 8 DEC 15 MEDLINE update schedule for December 2004
NEWS 9 DEC 17 ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS 10 DEC 17 COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS 11 DEC 17 SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS 12 DEC 17 CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS 13 DEC 17 THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS 14 DEC 30 EPFULL: New patent full text database to be available on STN
NEWS 15 DEC 30 CAPLUS - PATENT COVERAGE EXPANDED
NEWS 16 JAN 03 No connect-hour charges in EPFULL during January and February 2005
NEWS 17 FEB 25 CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS 18 FEB 10 STN Patent Forums to be held in March 2005
NEWS 19 FEB 16 STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005
NEWS 20 FEB 28 PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS 21 FEB 28 BABS - Current-awareness alerts (SDIs) available
NEWS 22 FEB 28 MEDLINE/LMEDLINE reloaded
NEWS 23 MAR 02 GBFULL: New full-text patent database on STN
NEWS 24 MAR 03 REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS 25 MAR 03 MEDLINE file segment of TOXCENTER reloaded

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

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NEWS WWW CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 15:59:04 ON 15 MAR 2005

=> s lithog? or planograph?

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STN search for 10765,797

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| | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.21 | 0.21 |

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FILE COVERS 1907 - 15 Mar 2005 VOL 142 ISS 12
FILE LAST UPDATED: 14 Mar 2005 (20050314/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s lithog?  
L1      59363 LITHOG?  
  
=> s planogr?  
L2      715 PLANOG?  
  
=> s l1 or l2  
L3      59785 L1 OR L2  
  
=> s heat? or infrared or infra red or ir or thermal printhead or thermal print head  
    2191254 HEAT?  
    232042 INFRARED  
    4681 INFRA  
    363053 RED  
    4071 INFRA RED  
        (INFRA (W) RED)  
    562469 IR  
    974828 THERMAL  
    426 PRINthead  
    21 THERMAL PRINthead  
        (THERMAL (W) PRINthead)  
    974828 THERMAL  
    17831 PRINT  
    108669 HEAD  
    75 THERMAL PRINT HEAD  
        (THERMAL (W) PRINT (W) HEAD)  
L4      2760301 HEAT? OR INFRARED OR INFRA RED OR IR OR THERMAL PRINthead OR  
        THERMAL PRINT HEAD  
  
=> s l4 and l3  
L5      6643 L4 AND L3
```

STN search for 10765,797

=> s fluoro? or perfluoro?
379314 FLUORO?
47229 PERFLUORO?
L6 400557 FLUORO? OR PERFLUORO?

=> s 16 and 15
L7 215 L6 AND L5

=> s dye
L8 242856 DYE

=> s 17 and 18
L9 10 L7 AND L8

=> d all 1-10

L9 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:158314 CAPLUS
ED Entered STN: 24 Feb 2005
TI Polymer compositions and lithographic printing plates using them
with excellent development latitude and chemical and wear resistance
IN Nakamura, Ippei
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 82 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-033
ICS G03F007-00; G03F007-004; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 38

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2005049640 | A2 | 20050224 | JP 2003-281935 | 20030729 |
| PRAI JP 2003-281935 | | 20030729 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2005049640 | ICM | G03F007-033 |
| | ICS | G03F007-00; G03F007-004; G03F007-11 |
| JP 2005049640 | FTERM | 2H025/AA04; 2H025/AA06; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB14; 2H025/CB41; 2H025/CC11; 2H025/CC20; 2H025/DA36; 2H025/FA17; 2H096/AA06; 2H096/BA09; 2H096/EA04; 2H096/GA08 |

100
new

AB The compns., changing solubility to aqueous alkaline solns. by IR laser
exposure, contain copolymers, bearing monomer units AZQY (A =
polymerizable double bond-containing monovalent organic group; Z = single bond,
divalent organic group; X = R1-4-substituted phenylene; R1-4 = H, halo,
alkoxy, alkyl, aryl; Y = aminosulfonyl, OH) and onium salt-containing monomer
units, and IR absorbers. The plates consist of supports, lower
recording layers containing the copolymers, and upper recording layers
containing

water-insol. and alkali-soluble polymers and development inhibitors, wherein
the lower and/or upper layers contain IR absorbers.

ST lithog plate IR laser exposure sensitivity; IR
absorber printing plate development latitude; chem resistance
lithog plate aminosulfonylphenyl polymer

STN search for 10765,797

IT Optical materials
(IR absorbers; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Dyes
(IR-absorbing, recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT IR materials
(absorbers; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Phenolic resins
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, cresol-based, recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Lithographic plates
(presensitized; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Fluoropolymers
RL: TEM (Technical or engineered material use); USES (Uses)
(recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT Polymers
RL: TEM (Technical or engineered material use); USES (Uses)
(water-insol. and alkali-soluble, upper recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT 134127-48-3 193687-61-5
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-absorbing dye, recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT 27029-76-1, PR 54046 217651-44-0 251098-96-1 844699-05-4
844699-06-5 844699-07-6 844699-08-7 844699-09-8 844699-10-1
844699-11-2
RL: TEM (Technical or engineered material use); USES (Uses)
(recording layer; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

IT 7429-90-5, Aluminum
RL: TEM (Technical or engineered material use); USES (Uses)
(support; lithog. printing plates containing certain copolymers bearing onium salts with good development latitude and chemical and wear resistance)

L9 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:779904 CAPLUS

DN 141:304301

ED Entered STN: 24 Sep 2004

TI Heat-sensitive lithographic printing plate precursor containing IR absorbing dye with perfluoroalkyl substituent

IN Deroover, Geert; Van Damme, Marc

PA Agfa-Gevaert, Belg.

SO U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

STN search for 10765,797

DT Patent
LA English
IC ICM B41N001-00
NCL 101453000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|------|----------|-----------------|----------|
| PI | US 2004182268 | A1 | 20040923 | US 2004-765797 | 20040127 |
| | JP 2004341484 | A2 | 20041202 | JP 2004-18894 | 20040127 |
| PRAI | EP 2003-100154 | A | 20030127 | | |
| | US 2003-444470P | P | 20030203 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | US 2004182268 | ICM | B41N001-00 |
| | | NCL | 101453000 |
| | JP 2004341484 | FTERM | 2H025/AA02; 2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB51; 2H025/CC11; 2H025/DA03; 2H025/FA17; 2H096/AA06; 2H096/BA09; 2H096/EA04; 2H096/GA08 |

Same

OS MARPAT 141:304301

AB A heat-sensitive pos. working lithog. printing plate precursor is described that has high differentiation between exposed and non-exposed areas and which has high sensitivity. Thus, the plate precursor comprises a hydrophilic support and a coating consisting of a first layer containing an oleophilic resin soluble in an aqueous alkaline developer and a second layer containing a water repellent compound. The coating comprises an IR absorbing dye sensitizer containing a perfluoroalkyl group that provides the printing plate precursor with high sensitivity. The IR absorbing dye can be present in the first layer, or in the second layer or in the optional other layer.

ST heat sensitive lithog printing plate precursor
IR dye; perfluoroalkyl substituent IR
dye lithog printing plate precursor

IT Dyes

(IR-absorbing; heat-sensitive pos. lithog
printing plate precursor containing IR absorbing dye
with perfluoroalkyl substituent)

IT Surfactants

(heat-sensitive pos. lithog. printing plate
precursor containing IR absorbing dye with
perfluoroalkyl substituent)

IT Lithographic plates

(heat-sensitive; heat-sensitive pos. lithog
printing plate precursor containing IR absorbing dye
with perfluoroalkyl substituent)

IT Polysiloxanes, uses

RL: DEV (Device component use); USES (Uses)
(polyether-, Tego wet 265, oleophilic resin layer; heat
-sensitive pos. lithog. printing plate precursor containing
IR absorbing dye with perfluoroalkyl
substituent)

IT Polysiloxanes, uses

RL: DEV (Device component use); USES (Uses)
(polyoxyalkylene-, graft, Tego glide 410, oleophilic resin layer;
heat-sensitive pos. lithog. printing plate precursor

containing IR absorbing dye with perfluoroalkyl substituent)

IT Polyoxalkylenes, uses
RL: DEV (Device component use); USES (Uses)
(polysiloxane-, graft, Tego glide 410, oleophilic resin layer;
heat-sensitive pos. lithog. printing plate precursor
containing IR absorbing dye with perfluoroalkyl substituent)

IT Polyethers, uses
RL: DEV (Device component use); USES (Uses)
(siloxane-, Tego wet 265, oleophilic resin layer; heat
-sensitive pos. lithog. printing plate precursor containing
IR absorbing dye with perfluoroalkyl substituent)

IT 134127-48-3
RL: NUU (Other use, unclassified); USES (Uses)
(comparison dye; heat-sensitive pos. lithog
printing plate precursor containing IR absorbing dye
with perfluoroalkyl substituent)

IT 762276-41-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(comparison dye; heat-sensitive pos. lithog
printing plate precursor containing IR absorbing dye
with perfluoroalkyl substituent)

IT 762276-37-9P 762276-38-0P 762276-39-1P 762276-40-4P
RL: DEV (Device component use); SPN (Synthetic preparation); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; heat-sensitive pos. lithog.
printing plate precursor containing IR absorbing dye
with perfluoroalkyl substituent)

IT 573-11-5, 2,3,4-Trimethoxybenzoic acid 1320-67-8, Methoxypropanol
56730-76-8, Fluorad 100346-90-5, Alnovol SPN452
RL: DEV (Device component use); USES (Uses)
(heat-sensitive pos. lithog. printing plate
precursor containing IR absorbing dye with
perfluoroalkyl substituent)

IT 142-04-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(intermediate in synthesis of comparison dye; synthesis of
IR absorbing dye sensitizer)

IT 98826-99-4P 762276-49-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate in synthesis of comparison dye; synthesis of
IR absorbing dye sensitizer)

IT 15901-42-5 41532-84-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(intermediate; synthesis of IR absorbing dye
sensitizer)

IT 6761-94-0P 29457-72-5P 61010-04-6P 121276-93-5P 200574-76-1P
263762-34-1P 762276-42-6P 762276-43-7P 762276-44-8P 762276-45-9P
762276-46-0P 762276-47-1P 762276-48-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; synthesis of IR absorbing dye
sensitizer)

IT 7429-90-5D, Aluminum, oxidized
RL: DEV (Device component use); USES (Uses)
(support; Heat-sensitive lithog. printing plate
precursor containing IR absorbing dye with

STN search for 10765,797

perfluoroalkyl substituent)
IT 530-62-1, 1,1'-Carbonyldiimidazole 34598-33-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of IR absorbing dye sensitizer)
IT 12707-52-7, FC431
RL: DEV (Device component use); USES (Uses)
(water repellent; heat-sensitive pos. lithog.
printing plate precursor containing IR absorbing dye
with perfluoroalkyl substituent)

L9 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:77992 CAPLUS

DN 140:136456

ED Entered STN: 30 Jan 2004

TI Lithographic printing plates for IR laser direct
platemaking with excellent scratch resistance and development latitude

IN Miyake, Hideo

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2004029680 | A2 | 20040129 | JP 2002-189993 | 20020628 |
| PRAI | JP 2002-189993 | | 20020628 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|------------|-------|--|
| JP | 2004029680 | ICM | G03F007-004 |
| | | ICS | G03F007-00 |
| JP | 2004029680 | FTERM | 2H025/AA04; 2H025/AA12; 2H025/AA13; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB52; 2H025/CC04; 2H025/CC20; 2H025/FA03; 2H025/FA17; 2H096/AA07; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/CA12; 2H096/EA04; 2H096/GA08 |

AB The plates have recording layers containing water-insol. and alkali-soluble
polymers and IR absorbers on supports, wherein the layers are
formed from coatings containing surfactants bearing reactive groups and F or
Si elements.

ST lithog printing plate scratch resistance; printing plate
recording layer reactive surfactant; fluorine surfactant plate IR
development latitude

IT Optical materials
(IR absorbers; lithog. printing plates having
reactive surfactant-containing recording layers with good scratch
resistance and development latitude for IR laser direct
platemaking)

IT IR materials
(absorbers; lithog. printing plates having reactive
surfactant-containing recording layers with good scratch resistance and
development latitude for IR laser direct platemaking)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, cresol-based, recording layer; lithog. printing

To
new

plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT **Lithographic plates**
(presensitized; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT **Fluoropolymers, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(reactive surfactant, recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT **Surfactants**
(reactive; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-absorbing dye, recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT 649756-66-1 649756-67-2 649756-69-4 649756-70-7 649756-71-8
649756-73-0 649756-75-2 650609-70-4 650609-72-6
RL: TEM (Technical or engineered material use); USES (Uses)
(reactive surfactant, recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT 58931-97-8P, Methacrylic acid-propyl methacrylate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

IT 27029-76-1, PR 54046 141634-00-6, Acrylonitrile-N-(4-aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(recording layer; lithog. printing plates having reactive surfactant-containing recording layers with good scratch resistance and development latitude for IR laser direct platemaking)

L9 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:553400 CAPLUS
DN 137:132119
ED Entered STN: 26 Jul 2002
TI IR-sensitive direct-imaging positive-working lithographic plate precursor
IN Oda, Akio
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-004
ICS G03F007-004; B41N001-14; G03F007-00; G03F007-032; G03F007-039; G03F007-095
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

STN search for 10765,797

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2002207288 | A2 | 20020726 | JP 2001-2363 | 20010110 |
| PRAI | JP 2001-2363 | | 20010110 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|--|
| | JP 2002207288 | ICM | G03F007-004 |
| | | ICS | G03F007-004; B41N001-14; G03F007-00; G03F007-032; G03F007-039; G03F007-095 |

AB The title lithog. plate precursor has a heat-sensitive layer, which contains a heat-sensitive water-insol. alkali solubilizable resin, an IR-absorbing dye, a F-containing polymer, on a hydrophilic support, wherein the heat-sensitive layer contains ≥ 1.4 % F-containing polymer based on the total solid component and has ≤ 1.4 g/cm² coating amount. The lithog. plate precursor shows the wide development latitude. ✓

ST IR sensitive imaging pos working lithog plate precursor

IT Lithographic plates
(IR-sensitive direct-imaging pos.-working lithog. plate precursor)

IT Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fluoropolymer for IR-sensitive direct-imaging pos.-working lithog. plate precursor)

IT 115515-73-6, Defensa MCF 312 137462-24-9, Megafac F 176
RL: TEM (Technical or engineered material use); USES (Uses)
(fluoropolymer for IR-sensitive direct-imaging pos.-working lithog. plate precursor)

L9 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:778174 CAPLUS

DN 135:325292

ED Entered STN: 26 Oct 2001

TI Near-IR-sensitive positive photoimaging materials and presensitized lithographic plates therefrom

IN Urano, Toshiyoshi; Minakami, Junji

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS B41N001-14; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 41

FAN.CNT 1

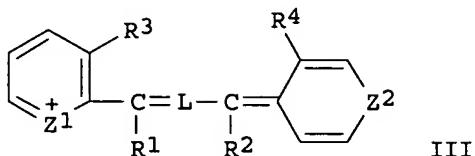
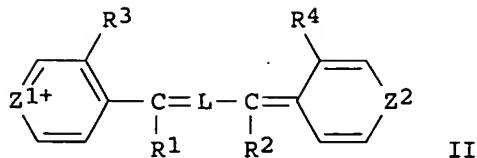
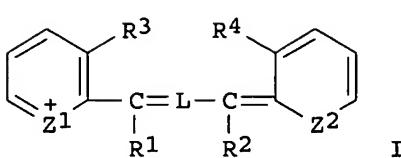
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2001296652 | A2 | 20011026 | JP 2000-113118 | 20000414 |
| PRAI | JP 2000-113118 | | 20000414 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|------------------------------------|
| | JP 2001296652 | ICM | G03F007-004 |
| | | ICS | B41N001-14; G03F007-00 |

OS MARPAT 135:325292

GI



| | |
|----|---|
| AB | The materials, showing high solvent solubility and offering high-contrast patterns, comprise alkali-soluble resins and near-IR-absorbing dyes composed of (thio)pyrylium cations and <u>fluoroarylboride</u> anions. The cations may be represented by I-III [Z1, Z2 = O, S; R1-4 = H, alkyl; L = (un)substituted mono-, tri-, penta-, or heptamethylene bridge]. |
| ST | thiopyrylium pyrylium IR dye pos photoimaging; pyrylium <u>fluoroarylboride</u> IR dye pos photoimaging; lithog master pyrylium IR absorbing dye; solvent solv pattern contrast pyrylium photoimaging |
| IT | Dyes (IR-absorbing, near-IR; near-IR-sensitive pos. photoimaging materials containing sp. (thio)pyrylium dyes for lithog. platemaking) |
| IT | Phenolic resins, uses RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (novolak, cresol-based; near-IR-sensitive pos. photoimaging materials containing sp. (thio)pyrylium dyes for lithog. platemaking) |
| IT | Photoimaging materials (pos., near-IR-sensitive; near-IR-sensitive pos. photoimaging materials containing sp. (thio)pyrylium dyes for lithog. platemaking) |
| IT | Lithographic plates (presensitized; near-IR-sensitive pos. photoimaging materials containing sp. (thio)pyrylium dyes for lithog. platemaking) |
| IT | 368421-31-2 368421-32-3 RL: CAT (Catalyst use); USES (Uses) (light-heat-converting layers; near-IR-sensitive pos. photoimaging materials containing sp. (thio)pyrylium dyes for lithog. platemaking) |
| IT | 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 367953-19-3 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (light-heat-converting layers; near-IR-sensitive pos. photoimaging materials containing sp. (thio)pyrylium dyes for lithog. platemaking) |

L9 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:472601 CAPLUS

DN 135:84326

STN search for 10765,797

ED Entered STN: 29 Jun 2001
TI Thermal digital lithographic printing plate
IN Patel, Jayanti; Saraiya, Shashikant; Hauck, Celin-Savariar; Huang, Jianbing; Mikell, Frederic; Shimazu, Kenichi; Merchant, Nishith
PA Kodak Polychrome Graphics Company Ltd., USA
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2001045958 | A2 | 20010628 | WO 2000-US42759 | 20001212 |
| | WO 2001045958 | A3 | 20020131 | | |
| | W: BR, JP | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | US 6352811 | B1 | 20020305 | US 1999-469490 | 19991222 |
| | BR 2000016716 | A | 20020903 | BR 2000-16716 | 20001212 |
| | EP 1263590 | A2 | 20021211 | EP 2000-992907 | 20001212 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, FI, CY, TR | | | | |
| | JP 2003518264 | T2 | 20030603 | JP 2001-546484 | 20001212 |
| PRAI | US 1999-469490 | A | 19991222 | | |
| | US 1998-90300P | P | 19980623 | | |
| | US 1999-301866 | A2 | 19990429 | | |
| | WO 2000-US42759 | W | 20001212 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| WO 2001045958 | ICM | B41M005-00 |
| US 6352811 | ECLA | B41C001/10A |

AB The invention relates to thermal lithog. plates that are imaged with an IR laser and processed with an aqueous alkaline developer. The thermal imaging element is made up of a substrate and a composite layer structure composed of 2 layer coatings. Preferably, the 1st layer of the composite is composed of an aqueous developable polymer mixture containing a solubility

inhibiting material and a photothermal conversion material which is contiguous to the hydrophilic substrate. The 2nd layer of the composite is insol. in the aqueous solution, is ink receptive, and is composed of ≥ 1 nonaq. soluble polymers which are soluble or dispersible in a solvent which

does

not dissolve the 1st layer. The 2nd layer may also contain a photothermal conversion material. Alternatively, the composite layer may be free of photothermal conversion material when thermal imaging is carried out using a thermal printing head.

ST thermal digital lithog printing plate acrylic binder resin
urethane

IT IR lasers

Lithographic plates

Thermal printing materials

(IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT Polyurethanes, uses

RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)

STN search for 10765,797

(IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT Fluoropolymers, uses
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(MP 1100; coating for thermal digital lithog. printing plate containing)

IT Phenolic resins, uses
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(novolak; IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT Acrylic polymers, uses
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(polyester-; IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT Recording materials
(thermal; IR-sensitive thermal lithog. plate containing acrylic binder resin and carbonyl-containing solubility inhibitor)

IT 9002-84-0, MP 1100
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(MP 1100; coating for thermal digital lithog. printing plate containing)

IT 2390-60-5, Victoria Blue BO 5496-71-9, ADS 1060A 9004-70-0, E 950
9011-14-7, PMMA 59269-51-1, Poly(vinyl phenol) 134127-48-3, ADS 830A
199444-11-6, KF 654B-PINA
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(coating for thermal digital lithog. printing plate containing)

IT 346593-65-5, PC-T 153 346594-06-7, JK 5
RL: DEV (Device component use); NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(developer for thermal digital lithog. printing plate containing)

IT 634-21-9 212964-63-1
RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(solubility-inhibitor dye; coating for thermal digital lithog. printing plate containing)

IT 346587-45-9P 346587-46-0P 346587-47-1P 346587-48-2P 346587-50-6P
346587-52-8P
RL: DEV (Device component use); PNU (Preparation, unclassified); POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis of acrylic binder resin free of carboxyl group for thermal digital lithog. printing plate)

L9 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:207911 CAPLUS

DN 134:239036

ED Entered STN: 22 Mar 2001

TI A method for obtaining a heat sensitive element by spray-coating

IN Verschueren, Eric; Vermeersch, Joan

PA Agfa-Gevaert N.V., Belg.

SO Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DT Patent

LA English

STN search for 10765,797

IC ICM B41M005-36
ICS B41C001-10

CC 42-13 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74

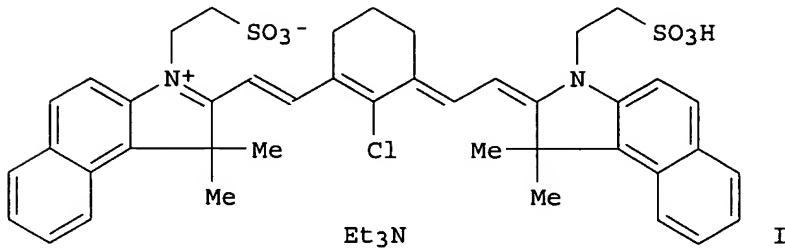
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|---|----------|----------------|-----------------|----------|
| PI | EP 1084862 | A1 | 20010321 | EP 1999-203065 | 19990915 |
| | EP 1084862 | B1 | 20031112 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2001121835 | A2 | 20010508 | JP 2000-269944 | 20000906 |
| US 6479216 | B1 | 20021112 | US 2000-659691 | 20000911 | |
| PRAI EP 1999-203065 | A | 19990915 | | | |
| US 1999-155770P | P | 19990927 | | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|------------|-------|------------------------------------|
| EP 1084862 | EP 1084862 | ICM | B41M005-36 |
| | | ICS | B41C001-10 |
| | | ECLA | B41C001/10A2; B41C001/10N |
| US 6479216 | US 6479216 | ECLA | B41C001/10A2; B41C001/10N |

GI



AB The method is carried out by spraying a spray solution on a receiving surface, which is not a grained and anodized aluminum surface, characterized in that the pressure factor (PF) is <200 mN/m, [PF = P/d + (mN/m); PF = Pressure Factor (mN/m), P = Spray Profile (mm), d = distance between spray head and receiving surface (mm), σ = surface tension (mN/m), θ = dynamic contact angle of the receiving surface with H₂O at 2 s contact time]. Thus, an element was prepared by spray-coating an aqueous solution containing polystyrene latex, I, Glascol E 15 [poly(acrylic acid)], and a fluorosurfactant on a lithog. base.

ST indolium diethylethanamine dye heat sensitive element; spray coating lithog. heat sensitive element

IT Synthetic rubber, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(itaconic acid-Me methacrylate-vinylidene chloride, rubber, lithog. base; method for obtaining a heat sensitive element by spray-coating)

IT Acrylic rubber
Polyesters, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(lithog. base; method for obtaining a heat

STN search for 10765,797

 sensitive element by spray-coating)
IT Lithographic apparatus
 (method for obtaining a heat sensitive element by
 spray-coating)
IT Coating process
 (spray; method for obtaining a heat sensitive element by
 spray-coating)
IT Synthetic rubber, uses
RL: TEM (Technical or engineered material use); USES (Uses)
 (styrene, spray solution containing; method for obtaining a heat
 sensitive element by spray-coating)
IT Recording materials
 (thermal; method for obtaining a heat sensitive element by
 spray-coating)
IT 9003-01-4, Poly(acrylic acid)
RL: TEM (Technical or engineered material use); USES (Uses)
 (Glascol E 15, spray solution containing; method for obtaining a heat
 sensitive element by spray-coating)
IT 9002-89-5, Polyviol WX 9011-14-7, Poly(methyl methacrylate)
25038-59-9, PET polymer, uses
RL: DEV (Device component use); TEM (Technical or engineered material
use); USES (Uses)
 (lithog. base; method for obtaining a heat
 sensitive element by spray-coating)
IT 27379-75-5, Itaconic acid-methyl methacrylate-vinylidene chloride
copolymer
RL: DEV (Device component use); TEM (Technical or engineered material
use); USES (Uses)
 (rubber, lithog. base; method for obtaining a heat
 sensitive element by spray-coating)
IT 221661-30-9
RL: TEM (Technical or engineered material use); USES (Uses)
 (spray solution containing; method for obtaining a heat sensitive
 element by spray-coating)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Agfa-Gevaert N V; EP 0674230 A 1995 CAPLUS
- (2) Du Pont-Howson Limited; EP 0429234 A 1991 CAPLUS
- (3) Hoechst Ag; DE 4000405 A 1991
- (4) Nishioka, A; US 4626484 A 1986 CAPLUS

L9 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:457208 CAPLUS

DN 127:88088

ED Entered STN: 23 Jul 1997

TI Donor elements and processes for thermal dye transfer by laser

IN Blanchet-Fincher, Graciela Beatriz

PA E. I. Du Pont de Nemours & Co., USA

SO PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM G03C001-498

 ICS G03F001-12

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI WO 9720252 | A1 | 19970605 | WO 1996-US18970 | 19961127 |

W: JP
 RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
 EP 864118 A1 19980916 EP 1996-942074 19961127
 EP 864118 B1 20000816
 R: DE, FR, GB, IT
 JP 2002517163 T2 20020611 JP 1997-520641 19961127
 JP 3421054 B2 20030630
 PRAI US 1995-564546 A 19951129
 US 1996-757717 A 19961126
 WO 1996-US18970 W 19961127

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|------------|--|---|
| WO 9720252 | ICM | G03C001-498 |
| | ICS | G03F001-12 |
| WO 9720252 | ECLA | B41M005/38A2; B41M005/40C; G03F001/00F3 |
| AB | Donor elements, assemblages, and associated processes are described for use in a laser-induced thermal transfer process, said elements comprising in the order listed (a) at least one flexible ejection layer comprising a first polymer having a decomposition temperature T1 and characteristic glass transition temps. of Tg0 and Tg1 for unplasticized and plasticized polymer samples, resp., wherein the tensile modulus of the flexible ejection layer(s) structure is less than or equal to 2.5 Gigapascals, (b) at least one heating layer, (c) at least one transfer layer comprising (i) a second polymer having a decomposition temperature T2, wherein $T2 \geq (T1 + 100)$ and (ii) an imageable component, with the proviso in some embodiments that an inflexible support substrate is absent in the donor element at least during the thermal transfer process or in other embodiments that a support is absent in the donor element at least during the thermal transfer process. These donor elements are useful in proofing and lithog. printing applications. Assemblages made with these donor elements are useful for fabrication of photomasks on various photohardenable materials, including flexog. printing plates and photoresists. These photomasks are useful in creating a relief image with a photosensitive element, such as flexog. printing plate or a photoresist. | |
| ST | laser thermal dye transfer image donor | |
| IT | Paraffin waxes, uses | |
| | RL: TEM (Technical or engineered material use); USES (Uses) (chloro; laser-sensitive dye donor elements for thermal transfer process containing) | |
| IT | Thermal-transfer printing (laser-sensitive dye donor elements for) | |
| IT | Acrylic polymers, uses | |
| | Polyesters, uses | |
| | RL: TEM (Technical or engineered material use); USES (Uses) (laser-sensitive dye donor elements for thermal transfer process containing) | |
| IT | Printing (impact) | |
| | (laser-sensitive dye donor elements for thermal transfer process for color proofing in) | |
| IT | Lithographic plates | |
| | Photomasks (lithographic masks) | |
| | Photoresists | |
| | (laser-sensitive dye donor elements for thermal transfer process for preparation of) | |
| IT | 84-62-8, Diphenyl phthalate 347-46-6, 4-Diazo-N,N-diethylaniline fluoroborate 6427-66-3, p-Azidobenzoic acid 9002-86-2, Poly(vinyl chloride) 9002-86-2D, Poly(vinyl chloride), chlorinated 9011-14-7, Poly(methyl methacrylate) 25038-59-9, Poly(ethylene terephthalate), uses 25750-84-9, Butyl acrylate-ethylene copolymer | |

STN search for 10765,797

151853-78-0, Elvacite AB 1030

RL: TEM (Technical or engineered material use); USES (Uses)
(laser-sensitive dye donor elements for thermal transfer
process containing)

L9 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1985:496431 CAPLUS
DN 103:96431
ED Entered STN: 22 Sep 1985
TI Highly photosensitive aqueous solvent-developable printing assembly
IN Herbert, Alan J.
PA Minnesota Mining and Manufacturing Co., USA
SO U.S., 9 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03G013-28
NCL 430049000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------------|------|----------|-----------------|----------|
| PI | US 4521503 | A | 19850604 | US 1984-609286 | 19840511 |
| | EP 161870 | A2 | 19851121 | EP 1985-303104 | 19850501 |
| | EP 161870 | A3 | 19870923 | | |
| | EP 161870 | B1 | 19901219 | | |
| | R: BE, DE, FR, GB, IT | | | | |
| | JP 60244952 | A2 | 19851204 | JP 1985-98883 | 19850509 |
| PRAI | US 1984-609286 | A | 19840511 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
| US 4521503 | ICM | G03G013-28 |
| | NCL | 430049000 |

AB A photoimaging assembly useful for preparation of lithog. plates and printed circuits consists of (1) an electroconductive support, (2) a photoresist layer sensitive to light at 250-450 nm region, and (3) a photoconductive upper layer containing spectrally sensitized Zn oxide sensitive to 370-1200 nm range in H2O-soluble or H2O-dispersible binder. Thus, an Al support (silicated and primed) was coated with a 8 weight% solids composition containing poly(alkyl orthophthalate) prepolymer, poly(vinylpyrrolidone), pentaerythritol tetraacrylate, cellulose acetate butyrate, polyurethane, 2-(p-methoxystyryl)-4,6-bis(trichloromethyl)-s-triazine, paraformaldehyde-p-diazodiphenylamine copolymer fluoroborate salt, yellow oil soluble dye dispersion, Microlith Blue 4 GK, MeCOEt, DMF, ethylene glycol monomethyl ether, air dried, overcoated with a dispersion containing EtOH, poly(vinylpyrrolidone), Photox 80 IR-125, dried, corona-discharged, IR imagewise exposed, developed with Scott System 200 toner, exposed in Colite arc frame, and developed with H2O.

ST printing plate photoimaging assembly; photoconductor photoresist imaging structure; elec circuit photoconductor photoresist structure

IT Photoimaging compositions and processes

(photosensitive assembly containing electroconductive support and photoresist layer and photoconductive upper layer containing spectrally sensitized zinc oxide for)

IT Electric circuits

Lithographic plates

(photosensitive imaging assembly for preparation of, containing

STN search for 10765,797

electroconductive support and photoresist layer and photoconductive upper layer containing spectrally sensitized zinc oxide)
IT 115-39-9 9003-39-8 9003-53-6 9003-54-7 9004-64-2 9010-76-8
9011-14-7 54957-10-7
RL: USES (Uses)
(photoimaging assembly containing electroconductive support and photoresist layer and photoconductive zinc oxide layer containing, for preparation of lithog. plates and printed circuits)
IT 1314-13-2, uses and miscellaneous
RL: USES (Uses)
(photoimaging assembly containing electroconductive support and photoresist layer and top layer containing, for preparation of lithog. plates and printed circuits)
IT 101-68-8D, reaction products with diols 147-14-8 4986-89-4 9003-39-8
42573-57-9 56646-84-5 62428-08-4 67290-46-4 69220-42-4
RL: USES (Uses)
(photoimaging assembly containing electroconductive support and photoresist layer containing, and photoconductive top layer, for fabrication of lithog. plates and printed circuits)

L9 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1969:408449 CAPLUS
DN 71:8449
ED Entered STN: 12 May 1984
TI Diazo-sensitized material for engraved intermediate masters
IN Whitbourne, Richard J.
PA Keuffel and Esser Co.
SO Fr., 4 pp.
CODEN: FRXXAK
DT Patent
LA French
IC G03F
CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|------|
| PI | FR 1511518 | | 19680126 | | |
| | DE 1572097 | | | DE | |
| | GB 1166724 | | | GB | |

PRAI US 19660218

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

FR 1511518 IC G03F

AB For the exposure of lithographic plates, e.g. for cartography, to 390-415 μ radiation, transparencies are made from a film carrying a pigmented layer for manual engraving and an overlying light-sensitive thermoplastic resin coating with a conventional diazonium salt-coupler combination. A heat-hardenable polymer is added to the bottom coating to minimize mixing of the 2 coatings. Thus, a 190 μ poly(ethylene terephthalate) film is given 2 7.6 μ coatings, the 1st of which contains 17 parts tall oil-modified alkyd resin, heat-hardenable Acryloid AT-50 1.5, Al stearate 21.3, CaCO₃ 52, and citric acid 0.16 parts. The diazo coating is made of cellulose acetate butyrate 40, Acryloid C-10-LV resin 328, p-diazoethylaniline fluoroborate 36, 3,5-resorcyli acid ethanolamide 25, 2-oxohexamethylenimine 20, ZnCl₂ 20, citric acid 20, thiourea 15, stearic acid 17, Iris-R dye (C.I. 60725) 0.3 part. To supplement the absorption of the azo dye image the film may be given a back coating, such as Acryloid B-44 resin with 2,2',4,4'-tetrahydroxybenzophenone.

STN search for 10765,797

ST diazo engraving masters; engraving masters diazo; masters engraving diazo
IT Diazo process
(in cartography, light-sensitive intermediate transparencies for
reproduction)
IT Maps
(light-sensitive intermediate transparencies for reproduction of)
IT Lithography
(plates, light-sensitive intermediate transparencies for)

=> d his

(FILE 'HOME' ENTERED AT 15:59:04 ON 15 MAR 2005)

FILE 'CAPLUS' ENTERED AT 15:59:38 ON 15 MAR 2005

L1 59363 S LITHOG?
L2 715 S PLANOGR?
L3 59785 S L1 OR L2
L4 2760301 S HEAT? OR INFRARED OR INFRA RED OR IR OR THERMAL PRINthead OR
L5 6643 S L4 AND L3
L6 400557 S FLUORO? OR PERFLUORO?
L7 215 S L6 AND L5
L8 242856 S DYE
L9 10 S L7 AND L8

=> s l7 not l9

L10 205 L7 NOT L9

=> d ti

L10 ANSWER 1 OF 205 CAPLUS COPYRIGHT 2005 ACS on STN
TI Fluoropolymers for integrated optics and photonics

=> s l10 and print?

217723 PRINT?

L11 79 L10 AND PRINT?

=> d all 1-79

L11 ANSWER 1 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:179106 CAPLUS
ED Entered STN: 03 Mar 2005
TI Recording materials containing microparticles with excellent antifogging
properties and wear resistance and recording apparatus using them
IN Katano, Yasuo
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N001-14
ICS B41M005-00; B41M005-26
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2005053185 | A2 | 20050303 | JP 2003-288951 | 20030807 |
| PRAI JP 2003-288951 | | 20030807 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|--------------------------------|---|
| JP 2005053185 | ICM | B41N001-14 |
| | ICS | B41M005-00; B41M005-26 |
| JP 2005053185 | FTERM | 2H086/AA13; 2H086/AA41; 2H086/AA50; 2H111/HA12; 2H111/HA14; 2H111/HA31; 2H114/AA04; 2H114/AA22; 2H114/AA27; 2H114/DA75; 2H114/EA03; 2H114/EA04; 2H114/EA08; 2H114/FA06; 2H114/GA01; 2H114/GA38 |
| AB | | The materials, useful for offset printing plates, have recording layers containing parts showing decrease in contact angle with liqs. when heated or cooled in contact with the liqs. and recovery of contact angle when heated or cooled in the absence of the liqs., wherein the recording layers or intermediate layers (between the recording layers and substrates) contain microparticles satisfying that surface area of clusters of them is 2-4 times that of them. |
| ST | | offset printing plate microparticle wear resistance; antifogging plate microparticle cluster surface area; pigment light absorber recording material reuse |
| IT | Fluoropolymers | RL: TEM (Technical or engineered material use); USES (Uses) (acrylic, recording layer; offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Acrylic polymers | RL: TEM (Technical or engineered material use); USES (Uses) (carbon black-containing microparticle, recording layer containing; offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Polyesters | RL: TEM (Technical or engineered material use); USES (Uses) (film, substrate; offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Acrylic polymers | RL: TEM (Technical or engineered material use); USES (Uses) (fluorine-containing, recording layer; offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Polyurethanes | RL: TEM (Technical or engineered material use); USES (Uses) (intermediate layer; offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Pigments, nonbiological | (light absorber, recording layer containing; offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Carbon black | RL: TEM (Technical or engineered material use); USES (Uses) (light absorber, recording layer containing; offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Microparticles | (offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Lithographic apparatus | (offset; offset printing plates containing microparticles with good antifogging properties and wear resistance) |
| IT | Polysiloxanes | RL: TEM (Technical or engineered material use); USES (Uses) (spherical or semi-spherical microparticle, recording layer containing; offset printing plates containing microparticles with good |

STN search for 10765,797

antifogging properties and wear resistance)
IT **Lithographic plates**
(waterless, offset; offset printing plates containing
microparticles with good antifogging properties and wear resistance)
IT 7631-86-9, Silica
RL: TEM (Technical or engineered material use); USES (Uses)
(microparticle, recording or intermediate layer containing; offset
printing plates containing microparticles with good antifogging
properties and wear resistance)

L11 ANSWER 2 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:77893 CAPLUS
DN 142:186574
ED Entered STN: 28 Jan 2005
TI Phase change ink imaging component having elastomer outer layer
IN Pan, David H.; Badesha, Santokh S.; Yuan, Xiaoying; Stanton, Donald S.;
Finsterwalder, Robert N.; Yeznach, Anthony; Snyder, Trevor J.
PA Xerox Corporation, USA
SO U.S. Pat. Appl. Publ., 14 pp., Division of U.S. Ser. No. 177,911.
CODEN: USXXCO
DT Patent
LA English
IC ICM B41J002-01
NCL 347103000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 35, 38

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI US 2005018027 | A1 | 20050127 | US 2004-920490 | 20040817 |
| PRAI US 1998-177911 | A3 | 19981023 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| US 2005018027 | ICM | B41J002-01 |
| | NCL | 347103000 |
| US 2005018027 | ECLA | G06T015/00A |

AB An offset printing apparatus having a coated imaging member for use
with phase-change inks, has a substrate, an optional intermediate layer,
and there over an outer coating having an elastomer of monomers selected
from the group consisting of halogenated monomers, polyorganosiloxane
monomers, and mixts. thereof, and an optional heating member
associated with the offset printing apparatus
ST phase change ink imaging component elastomer offset printing app
IT **Fluoro rubber**
RL: TEM (Technical or engineered material use); USES (Uses)
(bromotrifluorobutene-hexafluoropropene-tetrafluoroethylene-vinylidene
fluoride, reaction product; phase change ink imaging component having
elastomer outer layer)
IT **Lithographic apparatus**
(offset; phase change ink imaging component having elastomer outer
layer)
IT **Ceramers**
Coating materials
(phase change ink imaging component having elastomer outer layer)
IT **Fluoro rubber**
RL: TEM (Technical or engineered material use); USES (Uses)
(phase change ink imaging component having elastomer outer layer)
IT **Polysiloxanes, uses**

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)
(polyamine-, fluorine-containing; phase change ink imaging component having
elastomer outer layer)

IT Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyamine-polysiloxane-; phase change ink imaging component having
elastomer outer layer)

IT Polyamines
RL: TEM (Technical or engineered material use); USES (Uses)
(polysiloxane-, fluorine-containing; phase change ink imaging component
having elastomer outer layer)

IT 78-10-4DP, TEOS, polymer with trimethoxysilane modified
fluoroelastomer 7425-80-1DP, Titanium isobutoxide, polymer with
trimethoxysilane modified fluoroelastomer 115254-29-0DP, PS
545, polymer with trimethoxysilane modified fluoroelastomer
833480-14-1P 833480-15-2P 833480-16-3P 833480-17-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(phase change ink imaging component having elastomer outer layer)

IT 1760-24-3, A0700 34937-00-3, S-1590
RL: RCT (Reactant); RACT (Reactant or reagent)
(phase change ink imaging component having elastomer outer layer)

L11 ANSWER 3 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:57039 CAPLUS

DN 142:144113

ED Entered STN: 21 Jan 2005

TI Heat-sensitive lithographic plates showing good
on-machine developability and scratch resistance to form high-quality
images

IN Yamazaki, Sumiaki; Kodama, Kunihiko

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 56 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-14

ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

Section cross-reference(s): 35, 38

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI JP 2005014514 | A2 | 20050120 | JP 2003-185213 | 20030627 |
| PRAI JP 2003-185213 | | 20030627 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| ----- | ----- | ----- |
| JP 2005014514 | ICM | B41N001-14 |
| | ICS | G03F007-00; G03F007-004 |
| JP 2005014514 | FTERM | 2H025/AA01; 2H025/AA04; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/BC13; 2H025/BC42; 2H025/BD43; 2H025/BE07; 2H025/BH03; 2H025/BJ03; 2H025/CA48; 2H025/CB54; 2H025/CC11; 2H025/DA36; 2H025/FA10; 2H096/AA06; 2H096/BA05; 2H096/CA03; 2H096/EA04; 2H096/EA23; 2H114/AA04; 2H114/AA24; 2H114/BA01; 2H114/BA10; 2H114/DA35; 2H114/DA51; 2H114/DA54; 2H114/DA74; 2H114/EA02 |

AB The plates have, on hydrophilic supports, heat-sensitive layers

containing (A) acid- or radically polymerizable compds., (B) photothermal converters, and (C) thermally acid/radical-generating compds. chosen from (c1) ArCOCR6R7S+Y1Y2X- (Ar = aryl, heteroarom.; R6 = H, CN, alkyl, aryl; R7 = alkyl, aryl; Y1 , Y2 = alkyl, aryl, aralkyl, heteroarom.; X- = non-nucleophilic anion), (c2) $\text{R3(R2C:CR1)nCOCR4R5S+Y3Y4X-}$ [R1-R3 = H, alkyl(oxy), alkenyl, aryl; R4 , R5 = H, CN, alkyl(oxy), aryl; Y3 , Y4 = alkyl, aryl, aralkyl, heteroarom.; n = 1-4; X- = same as above], (c3) $\text{R3CO(R1C:CR2)nCR4R5S+Y3Y4X-}$ (R1-R5 , Y3 , Y4 , X- , n = same as above), and/or (c4) WmZS+Y5Y6X- [Y5 , Y6 = (oxo)alkyl, aryl, (oxo)aralkyl, heterocyclic; Z = single bond, organic group; W = CONRa-containing group, SO2NRa -containing group; Ra = H, alkyl; m = 1-3; X- = same as above]. The layers are removable with printing inks and/or dampening water. Alternatively, the plates contain A-including microcapsules in heat-sensitive layers and c1, c2, c3, and/or c4 in the layers or in neighboring layers. The plates are useful for IR scanning exposure.

ST heat sensitive lithog plate on machine developability; acid radically polymerizable lithog plate photothermal converter; isobutyrophenone sulfonium fluorobutanesulfonate acid radical generator; microcapsule heat sensitive lithog plate IR scanning

IT Polyoxalkylenes, reactions
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(acrylate-terminated, isocyanurate-containing; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT Epoxy resins, reactions
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT Lithographic plates
(presensitized; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 100844-79-9, NK Ester M 315
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(NK Ester M 315; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 470482-89-4P 524959-11-3P 524959-28-2P 610301-07-0P 617692-19-0P
RL: CAT (Catalyst use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acid/radical generators; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 610301-09-2 617692-26-9 676502-11-7 676502-29-7 823816-98-4
823816-99-5 823817-00-1
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(acid/radical generators; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 25068-38-6, Epikote 1004 52411-04-8 60506-81-2, Dipentaerythritol pentaacrylate
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

STN search for 10765,797

(heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 1440-60-4P, N-Chloroacetyl piperidine 39158-85-5P, Isobutyrophenone trimethylsilyl enol ether 80239-27-6P 86370-82-3P 617692-18-9P 681215-86-1P 823838-57-9P, 4-(tert-Butylacetyl)toluene trimethylsilyl enol ether
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(in preparation of acid/radical generators; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 78-59-1, Isophorone 108-88-3, Toluene, reactions 110-01-0, Tetrahydrothiophene 110-89-4, Piperidine, reactions 141-79-7, Mesityl oxide 611-70-1, Isobutyrophenone 1600-44-8, Tetramethylene sulfoxide 2168-93-6, Dibutyl sulfoxide 7065-46-5, tert-Butylacetyl chloride 29420-49-3, Potassium nonafluorobutanesulfonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of acid/radical generators; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 25854-16-4D, Xylylene diisocyanate, adducts 37337-02-3, Takenate D 110N
RL: TEM (Technical or engineered material use); USES (Uses)
(microcapsule walls; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

IT 183745-11-1
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(photothermal converters; heat-sensitive lithog. plates showing good on-machine developability and scratch resistance to form high-quality images)

L11 ANSWER 4 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:50962 CAPLUS
DN 142:144093
ED Entered STN: 20 Jan 2005
TI Original plates for direct laser platemaking without development and offset printing plates therefrom
IN Suzuki, Yuko; Sanada, Takayuki; Takano, Koji; Terauchi, Tomoya; Koide, Tetsuhiro
PA Mitsui Chemicals Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N001-14
ICS G03F007-00; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2005014523 | A2 | 20050120 | JP 2003-185330 | 20030627 |
| PRAI JP 2003-185330 | | 20030627 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| JP 2005014523 | ICM | B41N001-14 |

JP 2005014523 ICS G03F007-00; G03F007-004
FTERM 2H025/AA01; 2H025/AA02; 2H025/AA12; 2H025/AB03;
2H025/AC08; 2H025/AD01; 2H025/BH03; 2H025/BJ03;
2H025/CC11; 2H025/CC17; 2H025/DA02; 2H025/DA03;
2H025/FA10; 2H096/AA06; 2H096/BA01; 2H096/BA20;
2H096/EA04; 2H096/EA23; 2H114/AA04; 2H114/AA24;
2H114/BA01; 2H114/BA10; 2H114/DA23; 2H114/DA52;
2H114/DA53; 2H114/DA59; 2H114/DA60; 2H114/EA01

AB The original plates have hydrophilic photosensitive resin layers with surface F concentration ≥ 0.5 atomic% (measured by XPS) on supports directly or via other layers. The resin layers may comprise hydrophilic polymers, emulsion polymers, light absorbers showing absorption at 700-1200 nm, curing agents, hydrophilic additives, and optionally perfluoroalkyl group-containing additives and show hydrophilicity at least on their surfaces. Also claimed are offset printing plates manufactured by exposing the resin layers of the original plates to lasers with wavelength 700-1200 nm to have high-resolution images (e.g., by computer-to-plate lithog.).

ST laser direct platemaking offset printing plate; development free presensitized lithog plate offset; offset lithog plate surface perfluoroalkylamine oxide

IT Aminoplasts
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Perfluoro compounds
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(carboxylic acids, salts; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(emulsions; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Lithographic plates
(offset; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Carboxylic acids, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(perfluoro, salts; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Amine oxides
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(perfluoroalkyl; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT Lithographic plates
(presensitized; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 574-93-6D, Phthalocyanine, derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(dyes, light absorbers; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 140229-11-4, Olester UD 500 180983-82-8, Superflex 750
RL: TEM (Technical or engineered material use); USES (Uses)
(emulsions; original plates for direct laser platemaking without development and offset printing plates therefrom)

STN search for 10765,797

IT 11067-82-6, Neogen R 36290-04-7, Demol N
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(hydrophilic additives; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 3599-32-4, IR 125
RL: TEM (Technical or engineered material use); USES (Uses)
(light absorbers; original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 731854-08-3P, Acrylamide-Cymel 350-2-hydroxyethyl acrylate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(original plates for direct laser platemaking without development and offset printing plates therefrom)

IT 82030-84-0, Surflon S 141 84932-01-4, Surflon S 111
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(original plates for direct laser platemaking without development and offset printing plates therefrom)

L11 ANSWER 5 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:1035991 CAPLUS

DN 142:30046

ED Entered STN: 03 Dec 2004

TI Positive-working lithographic printing plate
precursors containing specific phenol resin

IN Watanabe, Kotaro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

Section cross-reference(s): 35

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|-----------|-----------------|----------|
| PI | JP 2004341405 | A2 | 20041202V | JP 2003-140275 | 20030519 |
| PRAI | JP 2003-140275 | | | 20030519 | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|------------|---|------------------------------------|
| JP 2004341405 | ICM | G03F007-004 | |
| | ICS | G03F007-00 | |
| JP 2004341405 | FTERM | 2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB29; 2H025/CB41; 2H025/CC11; 2H025/FA17; 2H096/AA06; 2H096/BA11; 2H096/EA04; 2H096/EA23; 2H096/GA08 | |

AB The title precursor has an alkali-developable IR-sensitive
imaging layer containing a phenol resin and a light-to-heat
converting agent on a hydrophilic support, wherein the phenolic resin has
hydroxy groups modified to ether groups. The precursor is for
direct-imaging and shows large dissoln. discrimination and good
post-exposure delay property.

ST pos lithog printing plate precursor

IT Lithographic plates
(lithog. printing plate precursors)

STN search for 10765,797

IT Phenolic resins, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(novolak; lithog. printing plate precursors)
IT 4282-42-2DP, Nonyl iodide, reaction product with novolak resin
27029-76-1DP, cyclohexylated 28934-28-3DP, Phenol-p-cresol-formaldehyde copolymer, pentylated 28935-25-3DP, Phenol-m-cresol-formaldehyde copolymer, reaction product with alkyl iodide 35464-74-5DP, Phenol-m-cresol-p-cresol-formaldehyde copolymer, 6-(perfluorobutyl)hexylated 35464-74-5DP, Phenol-m-cresol-p-cresol-formaldehyde copolymer, noylenylated 35464-74-5DP, Phenol-m-cresol-p-cresol-formaldehyde copolymer, octadecylated 35464-74-5DP, Phenol-m-cresol-p-cresol-formaldehyde copolymer, reaction product with alkyl iodide 56700-20-0DP, Phenol-2,5-xlenol-formaldehyde copolymer, isobutylated 56725-73-6DP, Phenol-2,3-xlenol-formaldehyde copolymer, phenylated
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(lithog. printing plate precursors)

L11 ANSWER 6 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:782087 CAPLUS

DN 141:304310

ED Entered STN: 24 Sep 2004

TI IR-sensitive positive lithographic printing
plate precursors having specific surfactant in backcoating layer

IN Fujita, Kazuo

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-09

ICS B41N001-14; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2004264661 | A2 | 20040924 | ✓ JP 2003-55667 | 20030303 |
| PRAI | JP 2003-55667 | | 20030303 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2004264661 | ICM | G03F007-09 |
| | ICS | B41N001-14; G03F007-00 |
| JP 2004264661 | FTERM | 2H025/AB03; 2H025/DA36; 2H025/DA40; 2H096/AA06; 2H096/CA03; 2H096/CA05; 2H114/AA04; 2H114/AA29; 2H114/DA08; 2H114/DA15; 2H114/DA41; 2H114/EA02; 2H114/GA09 |

AB The title printing plate precursor has a light-sensitive layer on a surface-anodized aluminum support and a backcoating layer on the back of the support, wherein the backcoating layer is made of metal oxides prepared by hydrolysis/condensation of: organometallic compds. or inorg. metal compds.; an organic polymer; and a polymer surfactant having fluoro aliphatic side chains, which are prepared by telomerization or oligomerization. The precursor provides printing plates, which requires decreased amount of developer replenishment and generates little insol. materials in a developer tank.

ST lithog printing plate precursor surfactant backcoating

STN search for 10765,797

layer
IT Surfactants
(polymer; light-sensitive lithog. printing plate
precursors)
IT Lithographic plates
(precursors; light-sensitive lithog. printing plate
precursors)
IT 79-10-7DP, Acrylic acid, reaction product with fluoro polymer
79-41-4DP, Methacrylic acid, reaction product with fluoro
polymer 65530-60-1DP, reaction product with acrylic acid 71371-52-3DP,
reaction product with acrylic acid 761418-87-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(light-sensitive lithog. printing plate precursors)
IT 206281-34-7, Megafac F 470 299190-83-3, Megafac F 472 402944-02-9,
Megafac F 473 402944-04-1, Megafac F 475 402944-08-5, Megafac F 476
RL: TEM (Technical or engineered material use); USES (Uses)
(light-sensitive lithog. printing plate precursors)
IT 1344-28-1P, Alumina, preparation
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)
(support surface; light-sensitive lithog. printing
plate precursors)
IT 7429-90-5, Aluminum, uses
RL: DEV (Device component use); USES (Uses)
(support; light-sensitive lithog. printing plate
precursors)
IT 181429-38-9, Megafac F 178
RL: TEM (Technical or engineered material use); USES (Uses)
(surfactant; light-sensitive lithog. printing plate
precursors)

L11 ANSWER 7 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:779254 CAPLUS
DN 141:285848
ED Entered STN: 24 Sep 2004
TI IR-sensitive positive lithographic printing ✓
plate precursors having specific surfactant in backcoating layer ✓
IN Fujita, Kazuo
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 43 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-09
ICS B41N001-14; G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 35

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI JP 2004264662 | A2 | 20040924 | JP 2003-55668 | 20030303 |
| PRAI JP 2003-55668 | | 20030303 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|---|------------------------------------|
| ----- | ----- | ----- |
| JP 2004264662 | ICM G03F007-09 | |
| | ICS B41N001-14; G03F007-00 | |
| JP 2004264662 | FTERM 2H025/AA00; 2H025/AB03; 2H025/DA36; 2H025/DA40; | |

2H096/AA06; 2H096/CA03; 2H096/CA05; 2H114/AA04;
2H114/AA29; 2H114/DA08; 2H114/DA15; 2H114/DA41;
2H114/DA47; 2H114/DA52; 2H114/DA58; 2H114/EA02;
2H114/FA02; 2H114/GA09

AB The title printing plate precursor has a light-sensitive layer on a surface-anodized aluminum support and a backcoating layer on the back of the support, wherein the backcoating layer is made of: metal oxides prepared by hydrolysis/condensation of organometallic compds. or inorg. metal compds.; an organic polymer; and a polymer surfactant having fluoro aliphatic side chains. The polymer surfactant is prepared by copolymn. of C=C(R1){-CO-X-(CH₂)_m-N(R2)-SO₂-(CF₂)_n-F} (X = -O-, -NR₃-; R₃ = H, C₁-12 alkyl, C₃-12 cycloalkyl, etc.; R₁ = H, -CH₃; R₂ = H, C₁-12 alkyl, C₃-12 cycloalkyl, C₆-12 aryl, C₇-24 aralkyl; m = integer 1-10; n = integer 1-4) and ethylenic unsatd. monomers having poly(oxyalkylene) groups. The precursor provides printing plates, which requires decreased amount of developer replenishment and generates little insol. materials in a developer tank.

ST lithog printing plate precursor surfactant backcoating layer

IT Surfactants

(polymer; light-sensitive lithog. printing plate precursors)

IT Lithographic plates

(precursors; light-sensitive lithog. printing plate precursors)

IT 96-49-1, Ethylene carbonate 107-10-8, Propylamine, reactions 375-72-4, Perfluorobutanesulfonyl fluoride 814-68-6, Acrylic acid chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(light-sensitive lithog. printing plate precursors)

IT 136215-16-2P 499776-70-4P 760195-44-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(light-sensitive lithog. printing plate precursors)

IT 672952-87-3P 760195-46-8P 760195-47-9P 760195-48-0P 760947-95-3P
760947-96-4P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(light-sensitive lithog. printing plate precursors)

IT 1344-28-1P, Alumina, preparation

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(support surface; light-sensitive lithog. printing plate precursors)

IT 7429-90-5, Aluminum, uses

RL: DEV (Device component use); USES (Uses)
(support; light-sensitive lithog. printing plate precursors)

L11 ANSWER 8 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:700265 CAPLUS

DN 141:215688

ED Entered STN: 27 Aug 2004

TI A positive type photosensitive image-forming material for an infrared laser and offset printing

IN Miyake, Hideo; Kawauchi, Ikuo

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 53 pp.

CODEN: EPXXDW

DT Patent

LA English

STN search for 10765,797

IC ICM B41C001-10
ICS B41M005-36
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 1449655 | A1 | 20040825 | EP 2004-10452 | 19981016 |
| | R: DE, GB | | | | |
| | JP 11119418 | A2 | 19990430 | JP 1997-285754 | 19971017 |
| | EP 909657 | A2 | 19990421 | EP 1998-119634 | 19981016 |
| | EP 909657 | A3 | 19990519 | | |
| | EP 909657 | B1 | 20030618 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | EP 1258369 | A2 | 20021120 | EP 2002-15513 | 19981016 |
| | EP 1258369 | A3 | 20021204 | | |
| | R: DE, GB | | | | |
| | JP 11218914 | A2 | 19990810 | JP 1998-322334 | 19981112 |
| | JP 2002196491 | A2 | 20020712 | JP 2001-376180 | 19981112 |
| | JP 2002251003 | A2 | 20020906 | JP 2001-398410 | 19981112 |
| | US 6340551 | B1 | 20020122 | US 1999-421535 | 19991020 |
| | US 2002081522 | A1 | 20020627 | US 2001-993634 | 20011127 |
| | JP 2004145370 | A2 | 20040520 | JP 2004-45309 | 20040220 |
| | JP 2004145371 | A2 | 20040520 | JP 2004-45310 | 20040220 |
| | JP 2004171029 | A2 | 20040617 | JP 2004-45308 | 20040220 |
| | JP 2004157573 | A2 | 20040603 | JP 2004-57884 | 20040302 |
| | JP 2004192011 | A2 | 20040708 | JP 2004-57885 | 20040302 |
| | JP 2004192012 | A2 | 20040708 | JP 2004-57886 | 20040302 |
| PRAI | JP 1997-285754 | A | 19971017 | | |
| | JP 1997-313778 | A | 19971114 | | |
| | EP 1998-119634 | A3 | 19981016 | | |
| | EP 2002-15513 | A3 | 19981016 | | |
| | US 1998-173719 | A3 | 19981016 | | |
| | JP 1998-322334 | A3 | 19981112 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|--|
| | EP 1449655 | ICM | B41C001-10 |
| | | ICS | B41M005-36 |
| | EP 1449655 | ECLA | B41C001/10A; B41M005/36S |
| | EP 909657 | ECLA | B41C001/10A; B41M005/36S; G03F007/004D |
| | EP 1258369 | ECLA | B41C001/10A |
| | US 6340551 | ECLA | B41C001/10A; B41M005/36S; G03F007/004D |
| | US 2002081522 | ECLA | B41C001/10A; B41M005/36S; G03F007/004D |
| | JP 2004145370 | FTERM | 2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB29; 2H025/CB41; 2H025/CB52; 2H025/CC20; 2H025/EA04; 2H025/EA10; 2H025/FA03; 2H025/FA17; 2H096/AA07; 2H096/BA16; 2H096/BA20; 2H096/CA12; 2H096/CA20; 2H096/EA04; 2H096/GA08; 2H096/JA02; 2H096/KA02 |
| | JP 2004145371 | FTERM | 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB41; 2H025/CB52; 2H025/CC20; 2H025/DA13; 2H025/FA03; 2H025/FA17; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/CA20; 2H096/EA04; 2H096/GA08; 2H096/JA04 |
| | JP 2004171029 | FTERM | 2H025/AA01; 2H025/AA04; 2H025/AA06; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/BG00; 2H025/CB14; 2H025/CB29; 2H025/CB41; 2H025/CB45; |

2H025/CC11; 2H025/FA17; 2H096/AA06; 2H096/BA09;
2H096/CA05; 2H096/EA04; 2H096/GA08; 4F100/AK02B;
4F100/AK03B; 4F100/AK12B; 4F100/AK21B; 4F100/AK24B;
4F100/AK25B; 4F100/AK26B; 4F100/AK27B; 4F100/AK34C;
4F100/AK62B; 4F100/AK66B; 4F100/AL01B; 4F100/AT00A;
4F100/BA03; 4F100/BA07; 4F100/BA10A; 4F100/BA10C;
4F100/EH46; 4F100/GB41; 4F100/JK01; 4F100/YY00B
JP 2004157573 FTERM 2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08;
2H025/AD03; 2H025/CB29; 2H025/CB52; 2H025/CC20;
2H025/DA36; 2H025/FA03; 2H025/FA17; 2H096/AA08;
2H096/BA16; 2H096/BA20; 2H096/CA05; 2H096/EA04;
2H096/GA08
JP 2004192011 FTERM 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03;
2H025/CB28; 2H025/CB45; 2H025/CB52; 2H025/CC03;
2H025/CC20; 2H025/DA36; 2H025/EA04; 2H025/FA03;
2H025/FA17; 2H096/AA07; 2H096/AA08; 2H096/BA16;
2H096/BA20; 2H096/CA05; 2H096/CA12; 2H096/EA04;
2H096/GA08
JP 2004192012 FTERM 2H025/AA04; 2H025/AA12; 2H025/AB03; 2H025/AC08;
2H025/AD03; 2H025/CB14; 2H025/CB29; 2H025/CB45;
2H025/CC04; 2H025/CC11; 2H025/DA13; 2H025/FA10;
2H025/FA17

AB A pos. image-forming material for use with IR laser comprises :
a substrate; a layer(A) containing not less than 50% of a copolymer which
contains, as a copolymer component, not less than 10% by mol of at least
one of monomer having in the mol. a sulfonamide group wherein at least one
hydrogen atom is linked to a nitrogen atom, and a monomer:
-C(=O)-NH-S(=O)(=O)-, and a monomer selected from acrylamide,
methacrylamide, acrylate, methacrylate and hydroxystyrene, which resp.
have a phenolic hydroxyl {group;} and a layer (B) containing not less than 50%
of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group.

The

layer (A) and the layer (B) are laminated on the substrate in that order.
At least the layer (B) contains a compound which generates heat
upon absorbing light. An image forming material comprises following
compound: R1-SO2-SO2-R2 and R1-SO2-R2 (R1,2 = alkyl, alkenyl or aryl group).
The photosensitive image-forming material and pos. photosensitive composition
have excellent stability of sensitivity with regard to concentration of a
developing solution, and can be used as an offset printing master.

ST pos photosensitive image material IR laser compn offset
printing

IT Surfactants

(fluorosurfactants; pos. type photosensitive image-forming
material for use with IR laser for)

IT Lithographic plates

(offset; pos. type photosensitive image-forming material for use with
IR laser for)

IT 85568-56-5, Megafac F-177

RL: TEM (Technical or engineered material use); USES (Uses)
(pos. type photosensitive image-forming material for use with
IR laser for)

IT 124996-93-6P, Acrylonitrile-N-(p-Aminosulfonylphenyl)methacrylamide-Ethyl
methacrylate copolymer 203179-80-0P, N-(p-Hydroxyphenyl)methacrylamide-
Ethyl methacrylate copolymer 223561-59-9P, N-(p-
Aminosulfonylphenyl)methacrylamide-Ethyl methacrylate copolymer
223561-61-3P, Acrylonitrile-N-(p-Aminosulfonylphenyl)acrylamide-methyl
methacrylate copolymer 504413-05-2P, Acrylonitrile-methyl
methacrylate-N-(p-toluenesulfonyl)methacrylamide copolymer
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)

STN search for 10765,797

(pos. type photosensitive image-forming material for use with
IR laser for offset printing plate containing)

L11 ANSWER 9 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:473046 CAPLUS
DN 141:31117
ED Entered STN: 11 Jun 2004
TI Phase change ink imaging component with nano-size filler
IN Pan, David H.; Badesha, Santokh S.
PA Xerox Corporation, USA
SO U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM B41J002-01
NCL 347103000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 42

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | US 2004109055 | A1 | 20040610 | US 2002-316234 | 20021209 |
| | EP 1428673 | A1 | 20040616 | EP 2003-28171 | 20031208 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | JP 2004188978 | A2 | 20040708 | JP 2003-408386 | 20031208 |
| | BR 2003005949 | A | 20040831 | BR 2003-5949 | 20031209 |
| PRAI | US 2002-316234 | A | 20021209 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|--|
| US 2004109055 | ICM | B41J002-01 |
| | NCL | 347103000 |
| EP 1428673 | ECLA | C09D011/00C4; C09D011/10B |
| JP 2004188978 | FTERM | 2H084/AA25; 2H084/AA38; 2H084/AE05; 2H084/BB02; 2H084/BB16; 2H114/AA01; 2H114/AA09; 2H114/AA28; 2H114/BA10; 2H114/DA03; 2H114/DA04; 2H114/DA08; 2H114/DA15; 2H114/DA49; 2H114/DA62; 2H114/DA75; 2H114/FA06; 2H114/GA34 |

AB The present invention provides an offset printing apparatus for transferring a phase change ink onto a print medium comprising: (a) a phase change ink component for applying a phase change ink in a phase change ink image; (b) an imaging member for accepting the phase change ink image from the phase change ink component, and transferring the phase change ink image from the imaging member to the print medium, the imaging member comprising: (i) an imaging substrate, and thereover (ii) an outer coating comprising a nanosize filler having an average particle size of from about 1 to about 250 nm. Thus, an Al drum was first sanded with 400 grit sand paper, and cleaned with MEK. The cleaned drum was then air dried, followed by compressed air treatment to remove residual dust particles. The cleaned drum was then coated uniformly with .apprx.3 g of a primer solution of Chemlok 5150 primer (aminosilane) solution (9:1 dilution with methanol), and allowed for hydrolysis. The primed drum was then air dried and allowed for further primer hydrolysis for at least 30 min. The primed drum was usually coated within 48 h of primer application. A fluoroelastomer outer coating solution was prepared by mixing a fluoroelastomer with a curative, curative base metal oxides and nanosize fillers and coated on the drum. After the coating was air dried overnight, the coated drum was oven dried at 120°F for

.apprx.4 h, followed by step heat curing at 200°F for 2 h, 300°F for 2 h, 350°F for 2 h, 400°F for 2 h and 450°F for 6 h. The final elastomer thickness was from about 15 to about 150 µm. The cured drum was then cooled to room temperature and ready for print testing with good result.

ST transfer printing phase change ink image device nanosize filler; fluoroelastomer coating nanosize filler phase change ink image drum

IT Fluoro rubber
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(hexafluoropropene-tetrafluoroethylene-vinylidene fluoride, Viton GH, Viton B 50 for coating; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Inks
(hot-melt; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Metals, uses
RL: MOA (Modifier or additive use); USES (Uses)
(nanosize fillers; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Fillers
(nanosized; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Lithographic apparatus
(offset; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Nanoparticles
Sol-gel processing
(phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Carbon black, uses
Oxides (inorganic), uses
Polyimides, uses
Polythiophenylenes
RL: MOA (Modifier or additive use); USES (Uses)
(phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Polyketones
RL: MOA (Modifier or additive use); USES (Uses)
(polyether-; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT Polyethers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyketone-; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 7631-86-9, Aerosil 130, uses
RL: MOA (Modifier or additive use); USES (Uses)
(colloidal, nanosize filler; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 7429-90-5, Aluminum, uses
RL: DEV (Device component use); USES (Uses)
(drum; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 13463-67-7, Titania, uses
RL: MOA (Modifier or additive use); USES (Uses)
(nanosize filler; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 1308-38-9, Chromium oxide, uses 1312-43-2, Indium oxide 1313-99-1, Nickel oxide, uses 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium

STN search for 10765,797

oxide, uses 1314-60-9, Antimony pentoxide 1332-29-2, Tin oxide 1332-37-2, Iron oxide, uses 1344-28-1, Aluminum oxide, uses 1344-70-3, Copper oxide
RL: MOA (Modifier or additive use); USES (Uses)
(nanosize fillers; phase change ink imaging device having fluoro rubber coating containing nano-size filler)

IT 1305-62-0, Calcium hydroxide (Ca(OH)2), uses 1309-48-4, Magnesium oxide (MgO), uses
RL: MOA (Modifier or additive use); USES (Uses)
(phase change ink imaging device having fluoro rubber coating containing nano-size filler)

L11 ANSWER 10 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:461290 CAPLUS
DN 141:251326
ED Entered STN: 08 Jun 2004
TI Sol-gel preparation of photosensitive fluorinated inorganic-organic thin films for printing plates
AU Satoh, K.; Nakazumi, H.
CS Department of Applied Materials Science, Graduate School of Engineering, Osaka Prefecture University, Sakai, Osaka, 599-8531, Japan
SO Thin Solid Films (2004), 460(1-2), 217-221
CODEN: THSFAP; ISSN: 0040-6090
PB Elsevier B.V.
DT Journal
LA English
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB A photosensitive inorg.-organic thin film is prepared by a sol-gel method from nylon, N,N'-methylenebisacrylamide, tetraethoxysilane, 3-methacryloxypropyltrimethoxysilane, and 2-perfluoroctylethyltrimethoxysilane (17F) for use as a printing plate medium. A single-layered coating film containing fluorine formed on an aluminum substrate exhibits much higher rubbing durability than existing silicone-based plates, and a low surface free energy of 16.5 mJ m-2 despite the low 17F content. The surface of the thin film was characterized by contact angle measurements, XPS, Fourier transform IR spectroscopy, and SEM. These analyses reveal that the mechanism of ink repellency on the printing plate was the migration of the fluorinated component to the surface of the thin film.
ST planog printing plate photosensitive fluorinated inorg org film; sol gel photosensitive fluorinated inorg org film printing plate
IT Lithographic plates
(offset; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)
IT Polymerization
(photopolymer.; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)
IT Printing plates
(planog.; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)
IT Ceramers
Contact angle
Hardness (mechanical)
IR spectra
Sol-gel processing
Surface free energy
X-ray photoelectron spectra
(sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)

STN search for 10765,797

IT 101947-16-4, 2-Perfluoroctylethyltriethoxysilane
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(17F; sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 55398-96-4, CM 8000
RL: RCT (Reactant); RACT (Reactant or reagent)
(CM-8000; sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 64-17-5, Ethanol, uses 67-63-0, 2-Propanol, uses
RL: NUU (Other use, unclassified); USES (Uses)
(developer; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 177080-76-1 736154-65-7 736154-67-9
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 3524-62-7, Benzoin methyl ether
RL: CAT (Catalyst use); USES (Uses)
(sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 2530-85-0, 3-Methacryloxypropyltrimethoxysilane
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 78-10-4, Tetraethoxysilane 110-26-9, N,N'-Methylenebisacrylamide
RL: RCT (Reactant); RACT (Reactant or reagent)
(sol-gel preparation of photosensitive fluorinated inorg.-organic thin films for printing plates)

IT 7429-90-5, Aluminum, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(substrate; printing plate medium from sol-gel derived photosensitive fluorinated inorg.-organic thin films)

IT 7440-21-3, Silicon, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(substrate; sol-gel preparation and characterization of photosensitive fluorinated inorg.-organic thin films for printing plates)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

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- (2) Anon; Shin Kankousei Jyushi 1981, P3
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STN search for 10765,797

(15) Yoneda, T; Thin Solid Films 1999, V351, P279 CAPLUS

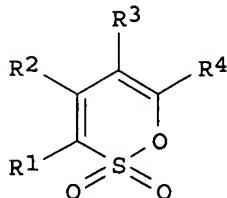
L11 ANSWER 11 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:412042 CAPLUS
DN 140:414977
ED Entered STN: 21 May 2004
TI IR-sensitive positive-working polymer compositions for recording
layers of presensitized lithographic plates suitable for
IR direct platemaking
IN Aogo, Toshiaki; Endo, Akihiro
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-004
ICS G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 38
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2004144933 | A2 | 20040520 | JP 2002-308752 | 20021023 |
| PRAI JP 2002-308752 | | 20021023 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2004144933 | ICM | G03F007-004 |
| | ICS | G03F007-00 |
| JP 2004144933 | FTERM | 2H025/AA01; 2H025/AA04; 2H025/AB03; 2H025/AD03; 2H025/BE00; 2H025/BG00; 2H025/CB28; 2H025/CB45; 2H025/CC11; 2H025/CC20; 2H025/FA17; 2H096/AA06; 2H096/BA11; 2H096/EA04; 2H096/GA08 |

OS MARPAT 140:414977
GI



I

AB The photoimaging compns. contain alkali-soluble resins having phenolic hydroxy groups, photothermal conversion agents, and sulfonate esters I [R1-4 = H, halo, (substituted) (cyclo)alkyl, alkenyl, etc.; two among R1-4 may form a ring] as photoacid generators. The compns. show high IR sensitivity and good development latitude and provide images with improved discrimination.
ST IR sensitive pos photoimaging compn lithog
printing platemaking; arom sulfonate photoacid generator pos

STN search for 10765,797

photoimaging compn
IT **Fluoropolymers, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(in pos.-working photoimaging polymer compns. containing aromatic sulfonate
photoacid generators for IR platemaking)
IT **Phenolic resins, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak; in pos.-working photoimaging polymer compns. containing aromatic
sulfonate photoacid generators for IR platemaking)
IT **Catalysts**
(photochem., aromatic sulfonate esters; in pos.-working photoimaging
polymer compns. containing aromatic sulfonate photoacid generators for
IR platemaking)
IT **Photoimaging materials**
(pos.-working; pos.-working photoimaging polymer compns. containing aromatic
sulfonate photoacid generators for IR platemaking)
IT **Lithographic plates**
(presensitized; pos.-working photoimaging polymer compns. containing
aromatic
sulfonate photoacid generators for IR platemaking)
IT 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer 137462-24-9,
Megafac F 176 690638-49-4, MCF 312
RL: TEM (Technical or engineered material use); USES (Uses)
(in pos.-working photoimaging polymer compns. containing aromatic sulfonate
photoacid generators for IR platemaking)
IT 4941-84-8 39533-27-2 139127-60-9
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES
(Uses)
(photoacid generator; in pos.-working photoimaging polymer compns.
containing aromatic sulfonate photoacid generators for IR
platemaking)
IT 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(photothermal conversion agent; in pos.-working photoimaging polymer
compns. containing aromatic sulfonate photoacid generators for IR
platemaking)

L11 ANSWER 12 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:249430 CAPLUS
DN 140:294808
ED Entered STN: 26 Mar 2004
TI Storage-stable and high-sensitivity presensitized lithographic
plates, manufacture of printing plates from them, and
printing method using them
IN Makino, Naonori; Inno, Norifumi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N001-14
ICS B41C001-055; G03F007-00; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2004090436 | A2 | 20040325 | JP 2002-255218 | 20020830 |
| PRAI JP 2002-255218 | | 20020830 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|--|---|
| JP 2004090436 | ICM | B41N001-14 |
| | ICS | B41C001-055; G03F007-00; G03F007-004 |
| JP 2004090436 | FTERM | 2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/BC13; 2H025/BC42; 2H025/BJ03; 2H025/CB07; 2H025/CC13; 2H025/CC17; 2H025/DA10; 2H025/FA10; 2H084/AA14; 2H084/AE05; 2H084/BB02; 2H084/BB04; 2H084/BB13; 2H084/CC05; 2H096/AA06; 2H096/BA05; 2H096/EA04; 2H096/EA23; 2H114/AA04; 2H114/AA23; 2H114/BA01; 2H114/DA21; 2H114/DA74; 2H114/FA06 |
| AB | The presensitized plate, suitable for computer-to-plate (CTP) systems and on-machine development, has an imaging layer containing microcapsules, which comprise polymer shells and cores of polymerizable compds., wherein the microcapsules contain isocyanates in such an amount that the ratio of IR absorbance peak intensity of the microcapsules at 2200-2400 cm-1 to that at 2800-3000 cm-1 is in the range of 0.05-0.50. | |
| ST | presensitized lithog plate storage stability photoimaging; microcapsule presensitized printing plate CTP sensitivity; IR absorbance isocyanate microcapsule lithog plate | |
| IT | Microcapsules (containing polymerizable compds.; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules) | |
| IT | Polyurethanes, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (fluorine-containing, microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules) | |
| IT | Polyurethanes, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules) | |
| IT | Epoxy resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (microcapsules containing; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules) | |
| IT | Fluoropolymers, preparation RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyurethane-, microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules) | |
| IT | Lithographic plates (presensitized; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules) | |
| IT | Lithographic plates Lithography Photoimaging materials (storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules) | |
| IT | Imaging (thermal, photothermal; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules) | |
| IT | 466694-02-0P, Millionate MR 200-Takenate D 110N copolymer | |
| | | 675836-16-5P |

STN search for 10765,797

675836-17-6P 675836-19-8P 675836-23-4P 675836-24-5P 675836-25-6P

675862-95-0P 676361-39-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(microcapsule shell; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)

IT 25068-38-6, Epikote 1004 30528-89-3, Butyl methacrylate-allyl methacrylate copolymer 52411-04-8 118322-44-4, 2-Propenoic acid, tetraester with tetrakis(hydroxymethyl)propane

RL: TEM (Technical or engineered material use); USES (Uses)
(microcapsules containing; storage-stable and high-sensitivity presensitized lithog. plates having polyurethane microcapsules)

L11 ANSWER 13 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:219920 CAPLUS

DN 140:232085

ED Entered STN: 19 Mar 2004

TI Microfluidic channels with attached biomolecules

IN Liu, Yingjie; Grodzinski, Piotr; Rauch, Cory; Smekal, Thomas J.

PA USA

SO U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM C12Q001-68

ICS B05D003-00; C12M001-34; G01N033-53

NCL 435006000; 435007100; 435287200; 427002110

CC 9-1 (Biochemical Methods)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI US 2004053237 | A1 | 20040318 | US 2002-242872 | 20020913 |
| PRAI US 2002-242872 | | 20020913 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|-------|-------|-------|
| ----- | ----- | ----- |
|-------|-------|-------|

US 2004053237 ICM C12Q001-68

ICS B05D003-00; C12M001-34; G01N033-53

NCL 435006000; 435007100; 435287200; 427002110

US 2004053237 ECLA B01L003/00C6M

AB An exemplary system and method for bonding substrate layers in the presence of chemical active species to form functionalized microfluidic surfaces is disclosed as comprising inter alia a first substrate (100), a second substrate (200), a chemical functional species (120) attached to first substrate (100), and a radiatively absorptive mask material (130) disposed substantially between first substrate (100) and second substrate (200). Mask material (130) is suitably adapted to effectively bond first substrate (100) with second substrate (200) upon exposure of the composite structure to radiation of a predetd., user-selectable wavelength. Disclosed features and specifications may be variously controlled, adapted or otherwise optionally modified to improve certain device fabrication parameters and/or performance metrics.

ST microfluidic channel attached biomol biosensor

IT Photoelectric devices

(IR; preparation and device of microfluidic channels with attached biomols.)

IT Minerals, reactions

Polymers, reactions

RL: DEV (Device component use); RCT (Reactant); TEM (Technical or

STN search for 10765,797

engineered material use); RACT (Reactant or reagent); USES (Uses)
(as substrate; preparation and device of microfluidic channels with attached
biomols.)

IT Biochemical molecules
(immobilized; preparation and device of microfluidic channels with attached
biomols.)

IT Apparatus
(microfluidic; preparation and device of microfluidic channels with attached
biomols.)

IT Fluids
(microfluids; preparation and device of microfluidic channels with attached
biomols.)

IT Biosensors

Composites

Electromagnetic wave

Fluorometry

Glass substrates

IR lasers

IR radiation

Immobilization, molecular or cellular

Microwave

Molecules

Multilayers

Optical absorption

Photomasks (lithographic masks)

Pore

Radio wave

Screen printing
(preparation and device of microfluidic channels with attached biomols.)

IT Amino acids, reactions

Antibodies and Immunoglobulins

Antigens

DNA

Elements

Enzymes, reactions

Oligonucleotides

Probes (nucleic acid)

Proteins

RNA

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and device of microfluidic channels with attached biomols.)

IT Polycarbonates, reactions
RL: DEV (Device component use); RCT (Reactant); TEM (Technical or
engineered material use); RACT (Reactant or reagent); USES (Uses)
(substrate; preparation and device of microfluidic channels with attached
biomols.)

IT Plastics, reactions
RL: DEV (Device component use); RCT (Reactant); TEM (Technical or
engineered material use); RACT (Reactant or reagent); USES (Uses)
(thermoplastics; preparation and device of microfluidic channels with
attached biomols.)

IT 14808-60-7, Quartz, reactions
RL: DEV (Device component use); RCT (Reactant); TEM (Technical or
engineered material use); RACT (Reactant or reagent); USES (Uses)
(as substrate; preparation and device of microfluidic channels with attached
biomols.)

L11 ANSWER 14 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:91695 CAPLUS
DN 140:347355

STN search for 10765,797

ED Entered STN: 05 Feb 2004
TI Extending optics to 50 nm and beyond with immersion lithography
AU Switkes, M.; Kunz, R. R.; Rothschild, M.; Sinta, R. F.; Yeung, M.; Baek, S.-Y.
CS Lincoln Laboratory, Massachusetts Institute of Technology, Lexington, MA, 02420, USA
SO Journal of Vacuum Science & Technology, B: Microelectronics and Nanometer Structures--Processing, Measurement, and Phenomena (2003), 21(6), 2794-2799
 CODEN: JVSTBM; ISSN: 1071-1023
PB American Institute of Physics
DT Journal
LA English
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB Numerical imaging simulations demonstrate the capability of immersion lithog. to print features smaller than 45 nm (35 nm) with good depth of focus at a vacuum wavelength of 193 nm (157 nm). The optical impact of index variation of the immersion liquid is simulated and found to be a shift of focus of 1 nm for each 1 ppm change in the bulk index of the liquid. For an index which varies through the thickness of the liquid (e.g., due to nonuniform temperature), the focus shift is found to be proportional to the total change in optical path length (OPL), with a 1 nm change in OPL leading to a .apprx.1.5 nm focus shift at 1.3 numerical aperture. A focus offset of 1-3 nm can be expected due to heating during scanning exposure. The possible formation of nanobubbles at resist surfaces is also discussed. While simulations show that even 10 nm thick bubbles at the surface of the resist cause 30% modulation in the aerial image intensity, no evidence of bubbles is seen in open frame immersion exposures. Imaging of 100 nm features is shown using an immersion contact phase-edge technique, with no evidence of bubbles or adverse liquid-resist interactions. Finally, we describe progress in the search for low absorbance liqs. for use at 157 nm. Liquid purity, including dissolved O2 and H2O, is found to be critical. The current absorbance record, 0.64±0.07 cm-1, held by perfluorotriglyme (CF3[OCF2CF2]3OCF3), is enough for a 350 μm working distance at 95% transmission.
ST extending optics resoln immersion lithog photolithog
IT Photolithography
 Simulation and Modeling, physicochemical
 (extending optics to 50 nm and beyond with immersion lithog.)
IT Bubbles
 (extending optics to 50 nm and beyond with immersion lithog.
 in relation to formation of nanobubbles)
IT Liquids
 (immersion liqs.; extending optics to 50 nm and beyond with immersion lithog.)
IT 64028-04-2, Perfluorotriglyme
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (extending optics to 50 nm and beyond with immersion lithog.
 in relation to immersion fluid purity)
RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Allen, R; Proc SPIE 1995, V2438, P474 CAPLUS
(2) Baek, S; Proc SPIE 2003, V5040, P1620
(3) Burnett, H; Proc SPIE 2003, V5040, P1742
(4) Kawata, H; Jpn J Appl Phys, Part 1 1992, V31, P4174 CAPLUS
(5) Kawata, H; Microelectron Eng 1989, V9, P31 CAPLUS
(6) Kunz, R; J Vac Sci Technol B 2003, V21, P78 CAPLUS
(7) Leung, P; J Chem Eng Data 1987, V32, P169 CAPLUS

STN search for 10765,797

- (8) Lin, B; Microelectron Eng 1987, V6, P31 CAPLUS
- (9) Owa, S; Proc SPIE 2003, V5040, P724 CAPLUS
- (10) Owen, G; J Vac Sci Technol B 1992, V10, P3032 CAPLUS
- (11) Switkes, M; J Microlithogr, Microfabr, Microsyst 2002, V1, P225 CAPLUS
- (12) Switkes, M; J Vac Sci Technol B 2001, V19, P2353 CAPLUS
- (13) Switkes, M; Proc SPIE 2003, V5040, P690 CAPLUS
- (14) Taharelli, W; US 4509852 1985
- (15) Takanashi, A; US 4480910 1984
- (16) Tyrrell, J; Phys Rev Lett 2001, V87, P176104 MEDLINE
- (17) Ulrich, W; preprint 2002
- (18) Wei, A; J Vac Sci Technol B, these proceedings
- (19) Wei, A; Proc SPIE 2003, V5040, P713

L11 ANSWER 15 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:57237 CAPLUS

DN 140:119900

ED Entered STN: 23 Jan 2004

TI Procedure for treating the outer surfaces of printing cylinders for improved print quality in double-sided printing

IN Jentzsch, Arndt; Kuehn, Roland; Schinkel, Olaf

PA Koenig & Bauer A.-G., Germany

SO Ger. Offen., 6 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM B41F013-08

ICS B41F013-10; B41F035-06; C08J007-16; C09D001-00; C09D183-04

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 42

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------|------|----------|------------------|----------|
| PI DE 10227759 | A1 | 20040122 | DE 2002-10227759 | 20020621 |
| PRAI DE 2002-10227759 | | 20020621 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|--|
| DE 10227759 | ICM | B41F013-08 |
| | ICS | B41F013-10; B41F035-06; C08J007-16; C09D001-00; C09D183-04 |
| DE 10227759 | ECLA | B41F022/00 |

AB A procedure for treating the outer surfaces of printing cylinders of a printing press is described which gives improved print quality on materials that are printed on both sides. In the process an ink-repelling and/or wear-retarding layer is applied to the outer surface of the printing cylinder as a solution and then heated or exposed to light to produce the layer. The alc. or aqueous solution providing the layer can consist of inorg. compound nanoparticles modified with an organic compd and containing a photoinitiator. Especially useful are nanoparticles from SiO₂, TiO₂, Al₂O₃ ZrO₂ and their mixts.

which are treated with fluoroalkylsilanes or fluoroalkyl-functionalized siloxanes.

ST coating printing cylinder outer surface print quality

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(fluoroalkyl polysiloxane-; procedure for treating outer surfaces of printing cylinders for improved print quality in double-sided printing)

STN search for 10765,797

IT Polysiloxanes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(fluoroalkyl; procedure for treating outer surfaces of
printing cylinders for improved print quality in
double-sided printing)
IT Lithographic plates
(offset, cylinders; procedure for treating outer surfaces of
printing cylinders for improved print quality in
double-sided printing)
IT 1314-23-4, Zirconium oxide, uses 1344-28-1, Aluminum oxide, uses
7631-86-9, Silica, uses 13463-67-7, Titanium oxide, uses
RL: MOA (Modifier or additive use); USES (Uses)
(nanoparticles; procedure for treating outer surfaces of
printing cylinders for improved print quality in
double-sided printing)
IT 7803-62-5D, Silane, alkoxy derivs., hydrolysis products
RL: MOA (Modifier or additive use); USES (Uses)
(procedure for treating outer surfaces of printing cylinders
for improved print quality in double-sided printing
)

L11 ANSWER 16 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:55557 CAPLUS
DN 140:119898
ED Entered STN: 22 Jan 2004
TI Direct-write waterless lithographic printing plates
for direct platemaking with no debris formation
IN Katano, Yasuo
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N001-14
ICS G03F007-00; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 38

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2004017592 | A2 | 20040122 | JP 2002-179042 | 20020619 |
| PRAI JP 2002-179042 | | 20020619 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2004017592 | ICM | B41N001-14 |
| | ICS | G03F007-00; G03F007-004 |
| JP 2004017592 | FTERM | 2H025/AA01; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/BH03; 2H096/AA06; 2H096/BA01; 2H096/BA20; 2H096/EA04; 2H114/AA05; 2H114/AA22; 2H114/BA10; 2H114/EA01; 2H114/EA02 |

AB The plates, useful for digital imaging by low-energy laser exposure,
consist of substrates and recording layers containing heat-fusible
polymers (perfluoroalkyl acrylate polymers, preferably) and
ink-repellent materials (polydimethylsiloxane, preferably) dispersed in
the polymers, wherein the polymers melt or increase the surface roughness
on heating. The plates may have layers containing light (400-900
nm)-absorbing materials between the substrates and recording layers.
ST lithog printing plate heat fusible polymer;

STN search for 10765,797

direct platemaking debris prevention polydimethylsiloxane particle;
perfluoroalkyl acrylate polymer surface roughness platemaking

IT Polysiloxanes, uses
RL: DEV (Device component use); USES (Uses)
(ink-repellent particles, recording layer; lithog.
printing plates for dampening-free direct platemaking with no
debris formation by low-energy laser exposure)

IT Carbon black, uses
RL: DEV (Device component use); USES (Uses)
(light-absorbing layer; lithog. printing plates for
dampening-free direct platemaking with no debris formation by
low-energy laser exposure)

IT Fluoropolymers, uses
RL: DEV (Device component use); USES (Uses)
(recording layer; lithog. printing plates for
dampening-free direct platemaking with no debris formation by
low-energy laser exposure)

IT Polyesters, uses
RL: DEV (Device component use); USES (Uses)
(substrate; lithog. printing plates for
dampening-free direct platemaking with no debris formation by
low-energy laser exposure)

IT Lithographic plates
(waterless; lithog. printing plates for
dampening-free direct platemaking with no debris formation by
low-energy laser exposure)

IT 9016-00-6, Polydimethylsiloxane 31900-57-9, Polydimethylsiloxane
RL: DEV (Device component use); USES (Uses)
(ink-repellent particles, recording layer; lithog.
printing plates for dampening-free direct platemaking with no
debris formation by low-energy laser exposure)

IT 79-10-7D, Acrylic acid, alkyl derivs., polymers 9002-88-4, Polyethylene
646534-83-0
RL: DEV (Device component use); USES (Uses)
(recording layer; lithog. printing plates for
dampening-free direct platemaking with no debris formation by
low-energy laser exposure)

IT 25038-59-9, Poly(ethylene terephthalate), uses
RL: DEV (Device component use); USES (Uses)
(substrate; lithog. printing plates for
dampening-free direct platemaking with no debris formation by
low-energy laser exposure)

L11 ANSWER 17 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:903178 CAPLUS
DN 139:366441
ED Entered STN: 19 Nov 2003
TI Phase change ink imaging component with polymer blend layer
IN Pan, David H.; Badesha, Santokh S.; Yuan, Xiaoying; Stanton, Donald S.;
Yeznach, Anthony; Snyder, Trevor J.
PA Xerox Corporation, USA
SO U.S., 13 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM B41J002-01
NCL 347103000; 347101000
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|---|------------------------------------|-----------------|----------|
| PI US 6648467 | B1 | 20031118 | US 2002-177779 | 20020620 |
| PRAI US 2002-177779 | | 20020620 | | |
| CLASS | | | | |
| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | | |
| US 6648467 | ICM | B41J002-01 | | |
| | NCL | 347103000; 347101000 | | |
| AB | An offset printing apparatus having a coated imaging member for use with phase-change inks, has a substrate, an optional intermediate layer, and an outer coating of a (filled) polymer blend of a first polymer and a second polymer different from the first polymer, and an optional heating member associated with the offset printing apparatus | | | |
| ST | hot melt ink receiving member printing app; coating receiving member printing app; fluoro rubber polysiloxane coating | | | |
| IT | Fluoro rubber RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (bromotrifluorobutene-hexafluoropropene-tetrafluoroethylene-vinylidene fluoride, top coating blend with volume graft; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks) | | | |
| IT | Polysiloxanes, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (coating volume graft blend with fluoro rubber; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks) | | | |
| IT | Inks (hot-melt; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks) | | | |
| IT | Lithographic apparatus (offset; containing imaging component with polymer blend coating layer) | | | |
| IT | Polysiloxanes, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polyamide-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks) | | | |
| IT | Polysiloxanes, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polyester-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks) | | | |
| IT | Polysiloxanes, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polyimide-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks) | | | |
| IT | Polyamides, uses Polyesters, uses Polyimides, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polysiloxane-; printing apparatus containing imaging component with | | | |

polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Polysiloxanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(polysulfone-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Ceramers
Coating materials
(printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Polymer blends
RL: TEM (Technical or engineered material use); USES (Uses)
(printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Polysulfones, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(siloxane-; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Fluoro rubber
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(top coating volume graft blend with polysiloxanes; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT Silicone rubber, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(under coat; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT 7429-90-5, Aluminum, miscellaneous
RL: MSC (Miscellaneous)
(imaging substrate; printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

IT 25190-89-0, Hexafluoropropylene-tetrafluoroethylene-vinylidene fluoride copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(printing apparatus containing imaging component with polymer blend coating layer for receiving, transferring and optionally fixing inks)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Abkowitz; US 5856013 A 1999 CAPLUS
(2) Knepper; US 5569750 A 1996 CAPLUS
(3) Ryang; US 4517342 A 1985 CAPLUS
(4) Titterington; US 5645888 A 1997 CAPLUS
(5) Watanabe; US 4728687 A 1988 CAPLUS

L11 ANSWER 18 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:762249 CAPLUS
DN 139:268051
ED Entered STN: 30 Sep 2003
TI Heat-sensitive plate material for lithographic printing plates
IN Ide, Yoichiro; Hayashi, Minoru
PA Asahi Kasei Corporation, Japan

STN search for 10765,797

SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-14

ICS G03F007-00; G03F007-004; G03F007-075

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|------------|-----------------|----------|
| PI | JP 2003276351 | A2 | 20030930 ✓ | JP 2002-85913 | 20020326 |
| PRAI | JP 2002-85913 | | | 20020326 | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|--|
| JP 2003276351 | ICM | B41N001-14 ICS G03F007-00; G03F007-004; G03F007-075 |
|---------------|-----|--|

AB Title plate material, suitable for making lithog.
printing plates by computer-to-plate method, comprises hydrophilic organic polymers and fine particles which form hydrophobic areas upon heating. The plate material is characterized by containing fluoropolymers or polysiloxanes. Lithog.
printing plates made by using the heat-sensitive plate material is also claimed.

ST heat sensitive plate lithog printing;
fluoropolymer heat sensitive plate; polysiloxane
heat sensitive plate

IT Polysiloxanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(alkoxy; heat-sensitive plate material for lithog.
printing plates)

IT Polysiloxanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(amino-containing; heat-sensitive plate material for
lithog. printing plates)

IT Polysiloxanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(carboxy-containing; heat-sensitive plate material for
lithog. printing plates)

IT Polyethers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(di-Me siloxane-; heat-sensitive plate material for
lithog. printing plates)

IT Polysiloxanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(di-Me, polyether-; heat-sensitive plate material for
lithog. printing plates)

IT Heat-sensitive materials
Lithographic plates
(heat-sensitive plate material for lithog.
printing plates)

IT Fluoropolymers, uses
Fluoropolymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material

STN search for 10765,797

use); USES (Uses)
(heat-sensitive plate material for lithog.
printing plates)

IT Polyurethanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene-, microcapsules; heat-sensitive plate material for lithog. printing plates)

IT Polysiloxanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene-; heat-sensitive plate material for lithog. printing plates)

IT Polyoxyalkylenes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(polysiloxane-; heat-sensitive plate material for lithog. printing plates)

IT 9002-83-9, Chlorotrifluoroethylene homopolymer 9002-84-0, Polyflon D 2C
24937-79-9, Polyvinylidene fluoride 24981-14-4, Polyvinyl fluoride
25038-71-5, Ethylene-tetrafluoroethylene copolymer 25067-11-2,
Hexafluoropropylene-tetrafluoroethylene copolymer 25101-45-5,
Chlorotrifluoroethylene-ethylene copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(heat-sensitive plate material for lithog.
printing plates)

IT 53187-92-1 123384-71-4, Coronate L-polyethylene glycol copolymer
206254-81-1, Glycidyl methacrylate-trimethylolpropane triacrylate copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(microcapsules; heat-sensitive plate material for lithog. printing plates)

L11 ANSWER 19 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:751276 CAPLUS
DN 139:268025
ED Entered STN: 25 Sep 2003
TI Lithographic plates producing less insoluble development scums
having high printing durability and platemaking therefor
IN Oshima, Yasuhito
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-00
ICS C08F002-44; C08F283-00; G03F007-032; G03F007-30
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 38
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|----------------|----------------------------------|---|----------------------------------|
| PI | JP 2003270775 US 2003211420 EP 1400852 | A2 A1 A2 | 20030925 20031113 20040324 | JP 2002-68811 US 2003-386427 EP 2003-5399 | 20020313 20030313 20030313 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRAI JP 2002-68811 A 20020313

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2003270775 | ICM | G03F007-00 |
| | ICS | C08F002-44; C08F283-00; G03F007-032; G03F007-30 |
| US 2003211420 | ECLA | G03F007/035; G03F007/32A |
| EP 1400852 | ECLA | G03F007/035; G03F007/32A |

AB The plates are manufactured by patternwise exposure of heat-mode laser beams on neg.-working presensitized lithog. plates having, on Al supports, urethane binders, ethylenically unsatd. compds., and photopolymn. catalysts, where the binders are prepared from diisocyanates, carboxyl-containing diols, diols of logP (hydrophobicity parameter, defined in disclosure) <0, and diols of logP >0. The thus-exposed layers are developed with developers containing nonionic compds. A-W (A = hydrophobic group giving logP of A-H ≥ 1.5 ; W = nonionic hydrophilic organic group giving logP of W-H <1.0) and satisfying pH 11.5-12.8 and elec. conductivity

3-30

mS/cm.

ST presensitized lithog plate development scum decreased; carboxyl contg urethane binder lithog plate; nonionic surfactant hydrophobic parameter presensitized lithog development

IT Polyurethanes, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(carboxyl-containing, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Polyurethanes, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fluorine-containing, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Lithographic plates

(lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Surfactants

(nonionic; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Photoimaging materials

(photopolymerizable; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Polyurethanes, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(polybutadiene-, block, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Polyurethanes, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(polyester-, block, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT Polyurethanes, processes

STN search for 10765,797

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polyoxyalkylene-, block, background area of pattern layers;
lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT **Fluoropolymers, processes**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polyurethane-, background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT **Lithographic plates**
(presensitized; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 461661-03-0 603962-66-9 603962-67-0 603962-69-2 603962-70-5
603962-71-6 603962-72-7 603991-55-5 603991-56-6 603991-57-7
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(background area of pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 26403-74-7 69778-08-1 99401-00-0 386214-34-2 386214-35-3
386214-38-6 386214-40-0
RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)
(developers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 113506-31-3P 444903-86-0P 444903-87-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 57592-66-2, Pentaerythritol tetraacrylate homopolymer
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(pattern layers; lithog. plates containing sp. urethane binders and producing less insol. development scums)

IT 37321-70-3, 1S
RL: TEM (Technical or engineered material use); USES (Uses)
(supports; lithog. plates containing sp. urethane binders and producing less insol. development scums)

L11 ANSWER 20 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:693976 CAPLUS
DN 139:237726
ED Entered STN: 05 Sep 2003
TI IR-sensitive material composition for lithographic printing plate precursors
IN Serikawa, Takeshi; Kawauchi, Ikuo
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-004
ICS C08F220-24; C08F220-26; C08F220-56; C08F290-04; C08F290-06;
G03F007-00; G03F007-039

STN search for 10765,797

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2003248302 | A2 | 20030905 | JP 2002-49775 | 20020226 |
| PRAI | JP 2002-49775 | | 20020226 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|--|
| | JP 2003248302 | ICM | G03F007-004 |
| | | ICS | C08F220-24; C08F220-26; C08F220-56; C08F290-04; C08F290-06; G03F007-00; G03F007-039 |

AB The title composition contains **fluoro** aliphatic group-containing copolymer(A) and **fluoro** aliphatic group-containing copolymer(B), wherein the copolymer A has repeating unit $-X-[-C(R_2)(R_3)-]_m-[Cf_2-CF_2]_n-F$ ($R_2-3 = H$, $c1-4$ alkyl; $X =$ single bond, 2-valent connecting group; $m \geq 1$ integer; $n \geq 1$ integer) and repeating unit $[-CH_2-c(R_4)\{OO(CuH_2uO)tR_4\}](R_4 = H, C1-4 alkyl; t \geq 3$ integer; $u = 1-6$ integer) and wherein copolymer B contains repeating unit $-X-[-C(R_2)(R_3)-]_m-[Cf_2-CF_2]_n-F$ ($R_2-3 = H$, $c1-4$ alkyl; $X =$ single bond, 2-valent connecting group; $m \geq 1$ integer; $n \geq 1$ integer) and repeating unit $[-CH_2-C(R_5)\{Coo(CoH_2oO)a-(CpH_2pO)b-(CqH_2qO)c-(CrH_2rO)d-(CsH_2sO)e-R_4\}](R_5 = H, C1-4 alkyl; R_6 = H, alkyl, aryl; o,p,q,r,s = 1-4$ integer; $a,b \geq 4$ integer; $c,d,e \geq 0$ integer). The composition provides **lithog. printing plate** precursor of good coating surface characteristics and wide developing latitude.

ST IR sensitive compn lithog printing plate
precursor

IT Light-sensitive materials
Lithographic plates

(IR-sensitive material composition for lithog.
printing plate precursors)

IT Fluoropolymers, preparation

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoro aliphatic group-containing copolymer)

IT 593259-04-2P 593259-06-4P 593259-08-6P 593259-10-0P 593259-12-2P
593259-14-4P 593259-16-6P 593259-18-8P 593259-20-2P 593259-22-4P
593266-62-7P 593266-63-8P 593266-64-9P 593266-65-0P 593266-66-1P

593266-67-2P 593266-68-3P 593266-69-4P 593266-70-7P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoro aliphatic group-containing copolymer)

L11 ANSWER 21 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:607533 CAPLUS

DN 139:151232

ED Entered STN: 08 Aug 2003

TI Glossy heat-set lithography offset printing
inks with improved abrasion resistance

IN Imai, Kiyonobu; Ishii, Hideo; Takahashi, Noriyuki; Minai, Yoko; Sugiyama, Hiroyuki

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D011-02

STN search for 10765,797

CC 42-12 (Coatings, Inks, and Related Products)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2003221536 | A2 | 20030808 | JP 2002-22935 | 20020131 |
| PRAI | JP 2002-22935 | | 20020131 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|------------|
| JP 2003221536 | ICM | C09D011-02 |
|---------------|-----|------------|

AB Title printing ink comprises wax (e.g., isoparaffins and/or cycloparaffins), having m.p. higher than room temperature (solid at room temperature)

and low maximum drying temperature after being written.

ST glossy lithog offset printing ink isoparaffin
cycloparaffin

IT Inks

(lithog.; production of glossy heat-set lithog
. offset printing inks with improved abrasion resistance)

IT Inks

(printing; production of glossy heat-set lithog
. offset printing inks with improved abrasion resistance)

IT Cycloalkanes

Fluoropolymers, uses

Isoalkanes

RL: TEM (Technical or engineered material use); USES (Uses)
(wax; production of glossy heat-set lithog. offset
printing inks with improved abrasion resistance)

IT 9002-84-0

RL: TEM (Technical or engineered material use); USES (Uses)
(wax; production of glossy heat-set lithog. offset
printing inks with improved abrasion resistance)

L11 ANSWER 22 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:583042 CAPLUS

DN 139:157401

ED Entered STN: 30 Jul 2003

TI IR-sensitive material composition for fabricating image-forming
layer of direct-imaging lithographic printing plate

IN Watanabe, Noriaki; Serikawa, Takeshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-039

ICS G03F007-00; G03F007-004; G03F007-038

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

Section cross-reference(s): 35

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2003215803 | A2 | 20030730 | JP 2002-17252 | 20020125 |
| PRAI | JP 2002-17252 | | 20020125 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|-----|-------------|
| JP 2003215803 | ICM | G03F007-039 |
|---------------|-----|-------------|

| | |
|-----|--------------------------------------|
| ICS | G03F007-00; G03F007-004; G03F007-038 |
|-----|--------------------------------------|

STN search for 10765,797

AB The title composition contains: (A) a water-insol. alkali-solubilizable resin; (B) a light-to-heat converting agent; (C) a F-containing (meth)acrylate polymer having 2-3 of C3-20 **perfluoroalkyl** groups; (D) a fluoro component copolymer; and (E) a copolymer of (meth)acrylate/poly(oxyalkylene) (meth)acrylate copolymer, wherein the fluoro copolymer(D) is prepared from: a monomer having a fluoro aliphatic group; one of CH₂=C(A1)(CO-W-R2), CH₂=C(A1)(-O-CO-R2), CH₂=C(A1)(U), and maleic anhydride or imide; a monomer having acidic hydrogen connected to N and wherein copolymer(E) is made of: 25-70 % of (meth)acrylate, which contains fluoro aliphatic group having \geq 40 % F, C3-20, per-fluorinated \geq 3 end carbons; poly(oxylene alkylate). The composition provides the lithog. plate precursor of good storageability and good coated layer characteristics, and wide development latitude.

ST IR comphn lithog printing plate

IT Light-sensitive materials

Lithographic plates

(IR-sensitive material composition for fabricating image-forming layer of direct-imaging lithog. printing plate)

IT 73038-33-2P 135758-92-8P 207792-99-2P 207793-00-8P 207793-01-9P
251098-96-1P 569670-35-5P 569670-37-7P 569670-39-9P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoropolymer)

L11 ANSWER 23 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:570114 CAPLUS

DN 140:119764

ED Entered STN: 25 Jul 2003

TI Diffusion-induced line-edge roughness

AU Stewart, Michael D.; Schmid, Gerard M.; Goldfarb, Dario L.; Angelopoulos, Marie; Willson, C. Grant

CS Department of Chemical Engineering, Univ. of Texas at Austin, Austin, TX, 78712, USA

SO Proceedings of SPIE-The International Society for Optical Engineering (2003), 5039(Pt. 1, Advances in Resist Technology and Processing XX), 415-422

CODEN: PSISDG; ISSN: 0277-786X

PB SPIE-The International Society for Optical Engineering

DT Journal

LA English

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

AB As feature dimensions shrink, line edge roughness has become an increasing concern in semiconductor fabrication. There are numerous potential contributors to line edge roughness throughout the lithog. process and any measured roughness value on a printed device feature is, like the feature itself, a convolved function of every processing step. When the full lithog. process is used to study line edge roughness, it can be difficult to isolate the contribution to final roughness from any individual processing step or factor. To gain a more fundamental understanding of roughness generation that is specifically related to photoresist chemical and formulation it is necessary to design expts. that sep. out exposure related issues like mask dimension variation or local dose variation ("shot noise"). This can be accomplished using previously reported exptl. protocols for bilayer film stack creation. The bilayer exptl. approach has been used to study the effect of variations in such factors as post exposure bake time, photoacid generator loading, and developer concentration on roughness generation.

Surface

STN search for 10765,797

roughness of the developed film stacks is measured via atomic force microscopy. Surface roughness of developed bilayer film stacks may be considered analogous to sidewall roughness of printed features. An acrylate-based 193nm photoresist resin and an APEX-type resin are used in these expts. In addition to exptl. results, results from mesoscale lithog. simulations are used to gain further insight into diffusion induced roughness and how roughness in the latent image is modified during the development step.

ST acid diffusion AFM line edge surface roughness mesoscale simulation

IT Photolithography
(UV; effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT Diffusion
(acid diffusion-induced line-edge roughness)

IT Heat treatment
Simulation and Modeling, physicochemical
Surface roughness
(effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT Semiconductor device fabrication
(effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks in relation to)

IT 75-59-2, CD 26
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(CD-26, developer; effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT 24979-70-2, Poly(4-hydroxystyrene)
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(acid feeder layer; effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT 87261-04-9P, Poly(4-tert-butyloxycarbonyloxystyrene)
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); PROC (Process)
(effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

IT 240435-11-4, Di(tert-butylphenyl)iodonium perfluorooctanesulfonate
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(photoacid generator; effect of variations in post exposure bake time, photoacid generator loading and developer concentration on surface roughness of developed film stacks)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

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(2) Burns, S; Proc SPIE 2001, P4345

(3) Flanagan, L; J Vac Sci Technol B 1999, V17, P1371 CAPLUS

(4) Goldfarb, D; J Vac Sci Technol B 2001, V19, P2699 CAPLUS

(5) He, D; J Vac Sci Technol B 1998, V16, P3748 CAPLUS

(6) Koh, H; Proc SPIE 2000, V3999, P240 CAPLUS

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STN search for 10765,797

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- (17) Ushirogouchi, T; Proc SPIE 1995, V2438, P160
- (18) Yamaguchi, T; Appl Phys Lett 1997, V71, P2388 CAPLUS
- (19) Yamaguchi, T; Proc SPIE 1999, V3678, P617 CAPLUS
- (20) Yoshimura, T; J Vac Sci Technol B 1992, V10, P185

L11 ANSWER 24 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:439601 CAPLUS

DN 139:15006

ED Entered STN: 10 Jun 2003

TI Lithographic master plates, their platemaking process and apparatus, and lithographic printing therewith

IN Hara, Takashi

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-14

ICS B41C001-055; B41F017-00; B41M005-26; G03F007-00; G03F007-004; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003165281 | A2 | 20030610 | JP 2002-123737 | 20020425 |
| PRAI | JP 2001-288619 | A | 20010921 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|--|
| | JP 2003165281 | ICM | B41N001-14 |
| | | ICS | B41C001-055; B41F017-00; B41M005-26; G03F007-00; G03F007-004; G03F007-11 |

AB The presensitized lithog. (PS) plates, for platemaking by patternwise heating or heat-mode laser exposure, have recording layers which are formed from dispersions of (A) wettability-variable materials which show water repellency on heating in dry state and wettability on heating in wet state, (B) hydrophilic materials, and optional photothermal converters by drying at a temperature or for a time to preventing A from filmforming. Neg.

or

pos. printing process on the PS plates without hydrophilic treatment, are detailed.

ST lithog platemaking fluoropolymer recording layer drying condition; fluoropolymer polyurethane exposed recording layer PS master; repellent treatment omitted platemaking PS plate

IT Fluoropolymers, processes

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses) (acrylic; repellent treatment-omitted low-cost platemaking on presensitized lithog. plates)

IT Carbon black, uses

STN search for 10765,797

RL: DEV (Device component use); USES (Uses)
(photothermal converters; repellent treatment-omitted low-cost
platemaking on presensitized lithog. plates)

IT **Lithographic plates**
(presensitized; repellent treatment-omitted low-cost platemaking on
presensitized lithog. plates)

IT **Polyurethanes, processes**
RL: DEV (Device component use); PEP (Physical, engineering or chemical
process); PYP (Physical process); PROC (Process); USES (Uses)
(recording layers; repellent treatment-omitted low-cost platemaking on
presensitized lithog. plates)

IT **Lithography**
(repellent treatment-omitted low-cost platemaking on presensitized
lithog. plates)

IT 79-10-7D, Acrylic acid, perfluoroalkyl esters, polymers
RL: DEV (Device component use); PEP (Physical, engineering or chemical
process); PYP (Physical process); PROC (Process); USES (Uses)
(recording layers; repellent treatment-omitted low-cost platemaking on
presensitized lithog. plates)

L11 ANSWER 25 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:391192 CAPLUS

DN 138:393112

ED Entered STN: 22 May 2003

TI Positive-working offset printing plate master suitable for
direct platemaking by IR laser

IN Endo, Akihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS B41N001-14; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

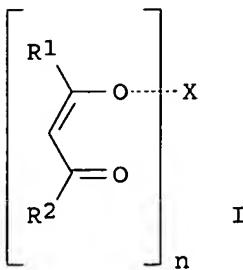
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2003149798 | A2 | 20030521 | JP 2001-344522 | 20011109 |
| PRAI | JP 2001-344522 | | 20011109 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|--------|------------------------------------|
| JP 2003149798 | ICM | G03F007-00 |
| | ICS | B41N001-14; G03F007-004 |
| OS | MARPAT | 138:393112 |

GI



AB The title **printing plate master** includes an image recording layer comprised of a photo-thermal conversion material, an alkaline-soluble polymer containing a phenolic OH group, and an organometallic complex represented by I (R1, R2 = H, alkyl, fluoroalkyl, aralkyl, aryl, alkyl ether, alkyl ester; X = metal atom; n = 1-3). By including the above organometallic complex, the **printing plate master** shows excellent development latitude and **printability**.

ST offset **printing plate master** organometallic complex acetone

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses) (novolak, alkaline-soluble polymer; organometallic complex additive-containing

pos.-working offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

IT **Lithographic plates** (offset; organometallic complex additive-containing pos.-working offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

IT 27029-76-1, Formaldehyde-m-cresol-p-cresol copolymer

RL: TEM (Technical or engineered material use); USES (Uses) (alkaline-soluble polymer; organometallic complex additive-containing pos.-working

offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

IT 10210-64-7, Bis(acetylacetato)beryllium 12193-47-4, Bis(acetylacetato)strontium, uses 13963-57-0, Tris(acetylacetato)aluminum 14024-56-7, Bis(acetylacetato)magnesium 19372-44-2, Bis(acetylacetato)calcium, uses 19648-85-2, Bis(hexafluoroacetylacetato)magnesium 118448-18-3, Bis(dipivaloylmethanato)calcium 121012-90-6, Bis(hexafluoroacetylacetato)calcium

RL: MOA (Modifier or additive use); USES (Uses) (organometallic complex additive-containing pos.-working offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

IT 134127-48-3

RL: TEM (Technical or engineered material use); USES (Uses) (photo-thermal conversion material; organometallic complex additive-containing pos.-working offset **printing plate master** suitable for direct platemaking by IR laser to improve development latitude and **printability**)

STN search for 10765,797

L11 ANSWER 26 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:300305 CAPLUS
DN 138:312905
ED Entered STN: 18 Apr 2003
TI Method of fabricating electric circuits using an adhesiveless transfer lamination method
IN Kydd, Paul H.
PA Paralec Inc., USA
SO U.S. Pat. Appl. Publ., 11 pp., Cont.-in-part of U.S. Ser. No. 458,929, abandoned.
CODEN: USXXCO
DT Patent
LA English
IC ICM B44C001-00
NCL 156233000; 156235000; 156238000
CC 76-14 (Electric Phenomena)
Section cross-reference(s): 38, 42, 57, 69, 74

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | US 2003070747 | A1 | 20030417 | US 2002-265513 | 20021004 |
| | US 6743319 | B2 | 20040601 | | |
| | US 6379745 | B1 | 20020430 | US 1999-367783 | 19990820 |
| | EP 1410403 | A1 | 20040421 | EP 2001-952277 | 20010628 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2004534362 | T2 | 20041111 | JP 2003-509466 | 20010628 |
| | US 2004151893 | A1 | 20040805 | US 2003-481994 | 20031226 |
| | US 2004265549 | A1 | 20041230 | US 2004-802361 | 20040317 |
| PRAI | US 1999-367783 | A | 19990820 | | |
| | US 1999-458929 | B2 | 19991210 | | |
| | US 1997-38514P | P | 19970220 | | |
| | US 1997-38669P | P | 19970220 | | |
| | US 1997-38670P | P | 19970220 | | |
| | WO 1997-US16226 | W | 19970912 | | |
| | US 1998-111947P | P | 19981211 | | |
| | US 1999-153783P | P | 19990914 | | |
| | WO 2001-US20575 | W | 20010628 | | |
| | US 2002-265513 | A3 | 20021004 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|--|
| | US 2003070747 | ICM | B44C001-00 |
| | | NCL | 156233000; 156235000; 156238000 |
| | US 2003070747 | ECLA | H05K003/20G |
| | US 6379745 | ECLA | H01B001/22; H01L021/48C4S; H01L021/60B2; H01L023/498M4; H05K001/09D |
| | JP 2004534362 | FTERM | 5E343/AA02; 5E343/AA15; 5E343/AA17; 5E343/BB24; 5E343/BB25; 5E343/BB39; 5E343/BB40; 5E343/BB47; 5E343/BB48; 5E343/BB49; 5E343/BB72; 5E343/DD02; 5E343/ER35; 5E343/GG11; 5G301/DA02; 5G301/DA03; 5G301/DA05; 5G301/DA06; 5G301/DA07; 5G301/DA10; 5G301/DA11; 5G301/DA12; 5G301/DA13; 5G301/DA14; 5G301/DA15; 5G301/DA22; 5G301/DA42; 5G301/DD01; 5G301/DD02; 5G301/DD10; 5G323/CA03 |
| | US 2004265549 | ECLA | H05K003/20G |

AB The invention relates to a method of fabricating elec. circuits using an adhesiveless transfer lamination method. An electronic circuit is made by printing a Parmod composition on a temporary substrate and curing it to produce a pattern of metal conductors. The conductors are laminated to a

substrate under heat and pressure to produce a laminate with the metal pre-patterned into the desired circuit configuration. The conductor can also be coated with a polymer and cured to form a prepatterned substrate. Single- and double-sided circuits or multilayers are made in this way.

ST fabrication elec circuit adhesiveless transfer lamination

IT Polyimides, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Matrimid, temporary substrate composed of; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Polyamide fibers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(aramid, temporary substrate composed of; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Heat treatment
(curing by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Printing (nonimpact)
(electrostatic, pattern applied by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Organometallic compounds
RL: CPS (Chemical process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(metal pattern precursor; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Powders
(metal, metal pattern precursor; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Decalcomanias

Thermocouples
(method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Lithography
(offset, pattern applied by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Gravure printing

Ink-jet printing

Printing (impact)

Screen printing
(pattern applied by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Electric conductors
(patterns; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Metals, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(patterns; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Printing (nonimpact)
(stenciling, pattern applied by; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Measuring apparatus
(strain gauges; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Ceramics
(substrates, temporary substrate composed of; method of fabricating elec. circuits using an adhesiveless transfer lamination method)

IT Foils

Glass substrates

Laminated materials

Paper
Paperboard
(temporary substrate composed of; method of fabricating elec. circuits
using an adhesiveless transfer lamination method)

IT Epoxy resins, uses
Fluoropolymers, uses
Polycarbonates, uses
Polyesters, uses
Polysiloxanes, uses
Polysulfones, uses
Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(temporary substrate composed of; method of fabricating elec. circuits
using an adhesiveless transfer lamination method)

IT Coating process
(transfer; method of fabricating elec. circuits using an adhesiveless
transfer lamination method)

IT 7440-22-4, Silver, uses 7440-50-8, Copper, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Parmod, elec. conductor; method of fabricating elec. circuits using an
adhesiveless transfer lamination method)

IT 511256-67-0, Formula 27
RL: TEM (Technical or engineered material use); USES (Uses)
(circuit traces coated by; method of fabricating elec. circuits using
an adhesiveless transfer lamination method)

IT 511256-40-9, PC 7 (epoxy resin)
RL: TEM (Technical or engineered material use); USES (Uses)
(holes plugged by; method of fabricating elec. circuits using an
adhesiveless transfer lamination method)

IT 55963-17-2, G 10
RL: TEM (Technical or engineered material use); USES (Uses)
(laminate with glass, precursor ink composed of; method of fabricating
elec. circuits using an adhesiveless transfer lamination method)

IT 26896-20-8, Neodecanoic acid 50315-14-5, Copper neodecanoate
62804-19-7, Silver neodecanoate
RL: TEM (Technical or engineered material use); USES (Uses)
(precursor ink composed of; method of fabricating elec. circuits using
an adhesiveless transfer lamination method)

IT 9002-84-0, Teflon 9002-88-4, Polyethylene 9003-07-0, Polypropylene
9003-53-6, Polystyrene 9004-34-6, Cellulose, uses 24968-11-4, Kaladex
2030 25036-53-7, Kapton H 157480-79-0, Espanex 180616-03-9, LARC-SI
RL: TEM (Technical or engineered material use); USES (Uses)
(temporary substrate composed of; method of fabricating elec. circuits
using an adhesiveless transfer lamination method)

L11 ANSWER 27 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:172929 CAPLUS
DN 138:229266
ED Entered STN: 07 Mar 2003
TI Lithographic printing plate precursor sensitive to ✓
infrared laser radiation
IN Mitsumoto, Tomoyoshi; Watanabe, Noriaki; Maemoto, Kazuo
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 44 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM B41C001-10
ICS G03F007-004; G03F007-023
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s): 35, 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|----------------|----------------------------------|---|----------------------------------|
| PI | EP 1287984 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK JP 2003066607 US 2003118942 | A1 A2 A1 | 20030305 20030305 20030626 | EP 2002-18162 JP 2001-261660 US 2002-217486 | 20020819 20010830 20020814 |
| PRAI | JP 2001-261660 | A | 20010830 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---|---------------------|--|
| | EP 1287984 EP 1287984 US 2003118942 | ICM ECLA ECLA | B41C001-10 B41C001/10A B41C001/10A |
| | | | G03F007-004; G03F007-023 |

AB A lithog. printing plate precursors sensitive to IR laser radiation is provided which shows an excellent coated surface state and an excellent stability with time against scratch. A lithog. printing plate precursors has a heat -sensitive layer containing: (A) a substance which absorbs a light to generate heat; (B) an alkaline aqueous solution-soluble resin having phenolic hydroxyl groups; (C) a polymer containing as a polymerizable component (meth)acrylate monomer having within the mol. 2 or 3 perfluoroalkyl groups containing 3-20 carbon atoms; and (D) a fluorine-containing polymer containing

at least three specific monomers as copolymerizable components.

ST lithog printing plate precursor sensitive IR
laser radiation

IT Lithographic plates

(lithog. printing plate precursor sensitive to
IR laser radiation)

IT 52002-56-9P, Isobutyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer 124996-93-6P, N-(p-Aminosulfonylphenyl)methacrylamide-acrylonitrile-ethyl methacrylate copolymer 207792-99-2P 207793-00-8P 207793-01-9P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(lithog. printing plate precursor sensitive to
IR laser radiation containing)

IT 80-62-6DP, Methyl methacrylate, polymer with hydroxyethyl methacrylate and (meth)acrylate dihydronyclopentadiene derivative 868-77-9DP, 2-Hydroxyethyl methacrylate, polymer with Me methacrylate and (meth)acrylate dihydronyclopentadiene derivative

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(lithog. printing plate precursor sensitive to
IR laser radiation containing)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methylacrylic acid, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of alkali-soluble high mol. compound for lithog.

printing plate precursor)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of alkali-soluble high mol. compound for lithog.
printing plate precursor)

STN search for 10765,797

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 2000, V2000(10)
- (2) Fuji Photo Film Co Ltd; EP 0843218 A 1998 CAPLUS
- (3) Fuji Photo Film Co Ltd; EP 0949539 A 1999 CAPLUS
- (4) Fuji Photo Film Co Ltd; EP 1011030 A 2000 CAPLUS
- (5) Fuji Photo Film Co Ltd; JP 2000187318 A 2000 CAPLUS

L11 ANSWER 28 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:152366 CAPLUS

DN 138:212816

ED Entered STN: 28 Feb 2003

TI Light-sensitive composition for image recording layer of
lithographic printing master plate

IN Kawachi, Ikuo
PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 57 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-033

ICS C08K005-00; C08L033-16; C08L033-26; C08L101-14; G03F007-00;
G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

Section cross-reference(s): 35

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|-----------|-----------------|----------|
| PI | JP 2003057820 | A2 | 20030228V | JP 2001-247351 | 20010816 |
| PRAI | JP 2001-247351 | | 20010816 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|------------|-------|--|
| JP | 2003057820 | ICM | G03F007-033 |
| | | ICS | C08K005-00; C08L033-16; C08L033-26; C08L101-14; G03F007-00; G03F007-004 |

AB The title composition contains a water-soluble alkali-solubilizable resin, a light-to-heat converting agent, a fluoro polymer A, and another fluoro polymer B, wherein fluoro polymer A contains a repeating unit -(CH₂)_m-(Cf₂-CF₂)_n-F (m, n = 1-6 integer) and wherein the fluoro polymer B contains ≥2 repeating unit -(CH₂)_m-(Cf₂-CF₂)_n-F (m, n = 1-6 integer). The composition provides the image recording layer of the good coatability, high printing durability, and the good scratch-resistance.

ST light compn lithog printing plate fluoro
polymer

IT Light-sensitive materials

Lithographic plates

(light-sensitive composition for image recording layer of lithog.
printing master plate)

| | | | | | |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 290825-10-4P | 451455-50-8P | 451455-51-9P | 451455-58-6P | 451455-60-0P |
| | 451455-63-3P | 451456-06-7P | 451456-26-1P | 451456-32-9P | 451456-35-2P |
| | 451456-37-4P | 451485-96-4P | 464920-76-1P | 464920-77-2P | 464920-78-3P |
| | 464920-79-4P | 464920-82-9P | 464922-84-7P | 464922-92-7P | 464922-98-3P |
| | 500280-82-0P | 500280-83-1P | 500280-85-3P | 500280-86-4P | 500280-87-5P |
| | 500280-89-7P | 500280-91-1P | 500280-93-3P | | |

RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(fluoro polymer; light-sensitive composition for image recording

STN search for 10765,797

layer of lithog. printing master plate)

L11 ANSWER 29 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:33828 CAPLUS
DN 138:80746
ED Entered STN: 15 Jan 2003
TI IR-absorbing polymers and photoimaging materials using them with
good scratch resistance and no image soiling
IN Nakamura, Ippei
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 39 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08G008-28
ICS G03F007-004; G03F007-032
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 38
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2003012746 | A2 | 20030115 | JP 2001-193251 | 20010626 |
| PRAI JP 2001-193251 | | 20010626 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| JP 2003012746 | ICM | C08G008-28 |
| | | ICS G03F007-004; G03F007-032 |

AB The photoimaging materials, useful for direct printing plate
making, especially for pos. photoimaging, comprise polymers having (A)
alkali-soluble functional groups, (B) functional groups that allow the
polymers to be localized near surface, and (C) IR-absorbing
groups. Residual photoimaging materials after developing is eliminated
with this invention.

ST IR photoimaging polymer direct plate making; scratch resistance
presensitized printing plate IR; presensitized
printing plate photoimaging surface localization

IT Photoimaging materials
(IR laser-sensitive scratch-resistant photoimaging materials
for direct printing plate making)

IT Lithographic plates
(presensitized; IR laser-sensitive scratch-resistant
photoimaging materials for direct printing plate making)

IT Phenolic resins, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(reaction products; IR laser-sensitive scratch-resistant
photoimaging materials for direct printing plate making)

IT 112-76-5DP, Stearyl chloride, reaction products with phenolic resins
335-64-8DP, Perfluoroctanoyl chloride, reaction products with
phenolic resins 6792-31-0DP, Hexafluoropropene trimer, reaction products
with phenolic resins or hydroxypolystyrene 24979-70-2DP,
4-Hydroxystyrene homopolymer, reaction products with cyanine dyes and
F-containing compds. 27029-76-1DP, m-Cresol-p-cresol-formaldehyde copolymer,
reaction products with cyanine dyes and F-containing compds. or stearoyl
chloride 134127-48-3DP, reaction products with phenolic resins or
hydroxypolystyrene
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

STN search for 10765,797

(IR laser-sensitive scratch-resistant photoimaging materials
for direct printing plate making)

L11 ANSWER 30 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:15797 CAPLUS
DN 138:80732
ED Entered STN: 08 Jan 2003
TI Platemaking of lithographic printing plate by using
automated development apparatus
IN Aono, Koichiro; Kawachi, Ikuo; Okuno, Takashi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-30
ICS B41C001-055; G03F007-00; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 38
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2003005379 | A2 | 20030108 | JP 2001-188541 | 20010621 |
| PRAI JP 2001-188541 | | 20010621 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|--|
| JP 2003005379 | ICM | G03F007-30 ICS B41C001-055; G03F007-00; G03F007-004 |

AB A pos.-working presensitized lithog. printing plate
having a photosensitive layer containing resins soluble in aqueous alkaline
solns.,
compds. absorbing light to generate heat, and long-chain
alkyl-containing compds. on a support is exposed and processed with an
automated apparatus having a development section, a water-washing section, a
finisher section, and a conveyer section, wherein the apparatus has a
developing bath equipped with rotary scrapers in contact with the
photosensitive layer of the plate and optionally the reverse side of the
photosensitive layer to satisfy position of the scrapers 1/3-2/3 of
developing agent immersion section from inlet side, scraper rotation rate
90-150 rpm, and contact width of the scrapers and the photosensitive layer
1.0-4.0 mm. The plate suitable for direct IR laser exposure is
continuously processed by the automated apparatus to have stable quality and
uniform image.

ST pos working lithog plate development app scraper; IR
laser platemaking photosensitive layer development app

IT Dyes
(IR-absorbing, photosensitive layer containing; platemaking of
lithog. printing plate by using automated development
apparatus with rotary scrapers)

IT Apparatus
(automated; platemaking of lithog. printing plate
by using automated development apparatus with rotary scrapers)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, cresol-based, photosensitive layer containing; platemaking of
lithog. printing plate by using automated development
apparatus with rotary scrapers)

IT Fluoropolymers, uses

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive layer containing; platemaking of lithog.
printing plate by using automated development apparatus with rotary
scrapers)

IT Lithographic plates
(presensitized, pos.-working; platemaking of lithog.
printing plate by using automated development apparatus with rotary
scrapers)

IT Brushes
(roll as rotary scraper; platemaking of lithog.
printing plate by using automated development apparatus with rotary
scrapers)

IT Materials processing
(scraping apparatus; platemaking of lithog. printing
plate by using automated development apparatus with rotary scrapers)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(monomer for polymer in photosensitive layer; platemaking of
lithog. printing plate by using automated development
apparatus with rotary scrapers)

IT 141634-00-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methyl
methacrylate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(photosensitive layer containing; platemaking of lithog.
printing plate by using automated development apparatus with rotary
scrapers)

IT 5303-25-3, Dodecyl stearate 27029-76-1, m-Cresol-p-cresol-formaldehyde
copolymer 56347-72-9 68900-98-1, 3-Methoxy-4-diazodiphenylamine
hexafluorophosphate 117283-53-1, Victoria Pure Blue BOH
1-naphthalenesulfonate 134127-48-3 207793-01-9 482373-11-5
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive layer containing; platemaking of lithog.
printing plate by using automated development apparatus with rotary
scrapers)

IT 37321-70-3, AA 1050
RL: TEM (Technical or engineered material use); USES (Uses)
(plate substrate; platemaking of lithog. printing
plate by using automated development apparatus with rotary scrapers)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(platemaking of lithog. printing plate by using
automated development apparatus with rotary scrapers)

L11 ANSWER 31 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:728737 CAPLUS
DN 137:270566
ED Entered STN: 25 Sep 2002
TI Recording materials with good ink stain resistance
IN Katano, Yasuo
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N001-14
ICS B41M005-00; B41M005-26
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

STN search for 10765,797

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2002274076 | A2 | 20020925 | JP 2001-81891 | 20010322 |
| | US 2002189477 | A1 | 20021219 | US 2002-99727 | 20020315 |
| | US 6725777 | B2 | 20040427 | | |
| PRAI | JP 2001-81891 | A | 20010322 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|------------------------------------|
| | JP 2002274076 | ICM | B41N001-14 |
| | | ICS | B41M005-00; B41M005-26 |

US 2002189477 ECLA B41N001/00A

AB The recording materials capable of giving good **printed** images and useful in **printing** plate applications contain a recording layer and a substrate layer. The recording layer comprise a polysiloxane material (S) and a material (F) in a sep. dispersed state, wherein the receding contact angle of the material (F) decreases when **heating** or cooling with a liquid; and it resumes to its original value when **heating** in the air. Thus, a coating comprising F-containing acrylic polymer emulsion (F) and silicone dispersion (S) was applied on a PET film and cured to give a recording material.

ST fluoro acrylic polymer receding contact angle recording material; polysiloxane **printing** plate material

IT Polysiloxanes, uses

RL: DEV (Device component use); USES (Uses)
(BY 244, SE 1950; recording materials containing F-containing acrylic polymers

and polysiloxanes with good ink stain resistance)

IT Fluoropolymers, uses

RL: DEV (Device component use); USES (Uses)
(acrylic; recording materials containing F-containing acrylic polymers and polysiloxanes with good ink stain resistance)

IT Printing plates

(computer-to-plate; **printing** plates containing F-containing acrylic polymers and polysiloxanes with good ink stain resistance)

IT Acrylic polymers, uses

RL: DEV (Device component use); USES (Uses)
(fluorine-containing; recording materials containing F-containing acrylic polymers

and polysiloxanes with good ink stain resistance)

IT Lithographic plates

(offset; **printing** plates containing F-containing acrylic polymers and polysiloxanes with good ink stain resistance)

IT Recording materials

(recording materials containing F-containing acrylic polymers and polysiloxanes with good ink stain resistance)

L11 ANSWER 32 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:711309 CAPLUS

DN 137:239775

ED Entered STN: 19 Sep 2002

TI **Lithographic printing plate without wet processing**
containing heat switchable carboxylate polymer

IN Leon, Jeffrey W.

PA Kodak Polychrome Graphics LLC, USA

SO U.S., 14 pp., Cont.-in-part of U.S. 6,447,978.
CODEN: USXXAM

DT Patent

STN search for 10765,797

LA English
IC ICM G03F007-038
NCL 430270100
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37, 38

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | US 6451500 | B1 | 20020917 | US 2000-644600 | 20000823 |
| | US 6447978 | B1 | 20020910 | US 1999-454151 | 19991203 |
| | WO 2001039985 | A2 | 20010607 | WO 2000-US32841 | 20001204 |
| | WO 2001039985 | A3 | 20011108 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1244548 | A2 | 20021002 | EP 2000-982378 | 20001204 |
| | EP 1244548 | B1 | 20040616 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | BR 2000016070 | A | 20030225 | BR 2000-16070 | 20001204 |
| | JP 2003527978 | T2 | 20030924 | JP 2001-541699 | 20001204 |
| | EP 1413432 | A1 | 20040428 | EP 2003-28448 | 20001204 |
| | R: BE, DE, FR, GB, IT, NL | | | | |
| PRAI | US 1999-454151 | A2 | 19991203 | | |
| | US 2000-644600 | A | 20000823 | | |
| | EP 2000-982378 | A3 | 20001204 | | |
| | WO 2000-US32841 | W | 20001204 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|------------|-------|------------------------------------|
| | US 6451500 | ICM | G03F007-038 |
| | | NCL | 430270100 |
| | US 6451500 | ECLA | B41C001/10B; B41M005/36S |
| | US 6447978 | ECLA | B41C001/10B; B41M005/36S |
| | EP 1413432 | ECLA | B41C001/10B |

AB An imaging member, such as a neg.-working printing plate or on-press cylinder, can be prepared using a hydrophilic imaging layer comprised of a heat-sensitive hydrophilic polymer that comprises recurring units comprising quaternary ammonium carboxylate groups. These quaternary ammonium carboxylate groups include at least one substituted-alkylene(C1-C3)-Ph group. The imaging member can also include an IR radiation sensitive material to provide added sensitivity to heat that can be supplied by laser irradiation in the IR region. The heat-sensitive polymer is considered "switchable" in response to heat, and provides a lithog. image without wet processing.

ST lithog printing plate wetless processing heat
switchable carboxylate polymer; printing roll wetless processing
heat switchable carboxylate polymer

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinking agent; lithog. printing plate without
wet processing containing heat switchable carboxylate polymer)

IT Lithographic plates
 Printing rolls
 (lithog. printing plate without wet processing
 containing heat switchable carboxylate polymer)

IT Carbon black, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polymer grafted; lithog. printing plate without
 wet processing containing heat switchable carboxylate polymer)

IT Acrylic polymers, preparation
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (reaction products with benzyl trimethylammonium hydroxide derivs.;
 lithog. printing plate without wet processing containing
 heat switchable carboxylate polymer)

IT 6018-06-0DP, reaction products with silver oxide and polyacrylic acid
 21949-11-1DP, reaction products with silver oxide and polyacrylic acid
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
 engineered material use); PREP (Preparation); USES (Uses)
 (lithog. printing plate without wet processing
 containing heat switchable carboxylate polymer)

IT 333-45-9DP, Benzenemethanaminium, 4-fluoro-N,N,N-trimethyl-,
 bromide, reaction products with silver oxide and polyacrylic acid
 1585-16-6DP, α -Chloroisodurene, reaction products with
 trimethylamine, silver oxide and polyacrylic acid 9003-01-4DP,
 Polyacrylic acid, reaction products with benzyl trimethylammonium
 hydroxide derivs. 16814-21-4DP, reaction products with silver oxide and
 polyacrylic acid 25251-56-3DP, 3-Chlorobenzyl trimethylammonium bromide,
 reaction products with silver oxide and polyacrylic acid 25251-62-1DP,
 4-Bromobenzyl trimethylammonium bromide, reaction products with silver
 oxide and polyacrylic acid 31280-95-2DP, Benzenemethanaminium,
 4-methoxy-N,N,N-trimethyl-, chloride, reaction products with silver oxide
 and polyacrylic acid 71677-96-8DP, reaction products with silver oxide
 and polyacrylic acid 84309-29-5DP, Benzenemethanaminium,
 2,4-dichloro-N,N,N-trimethyl-, chloride, reaction products with silver
 oxide and polyacrylic acid 97491-52-6DP, reaction products with silver
 oxide and polyacrylic acid 108848-19-7DP, 3,5-Dimethylbenzyl
 trimethylammonium bromide, reaction products with silver oxide and
 polyacrylic acid 342427-68-3DP, Benzenemethanaminium,
 3,4-dichloro-N,N,N-trimethyl-, chloride, reaction products with silver
 oxide and polyacrylic acid 342427-69-4DP, Benzenemethanaminium,
 3,4,5-trimethoxy-N,N,N-trimethyl-, bromide, reaction products with silver
 oxide and polyacrylic acid
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (lithog. printing plate without wet processing
 containing heat switchable carboxylate polymer)

IT 96595-50-5, CR 5L 342634-54-2, FX-GE-003
 RL: TEM (Technical or engineered material use); USES (Uses)
 (lithog. printing plate without wet processing
 containing heat switchable carboxylate polymer)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; WO 9209934 1992 CAPLUS
- (2) Anon; EP 0652483 A1 1995 CAPLUS
- (3) Anon; EP 0924102 A1 1999
- (4) Anon; EP 1031412 2000
- (5) Anon; EP 980754 2000
- (6) Damme; US 6165691 A 2000 CAPLUS
- (7) Dominh; US 5922512 A 1999 CAPLUS
- (8) Esumi; US 4634659 A 1987 CAPLUS

STN search for 10765,797

- (9) Etoh; US 4405705 A 1983 CAPLUS
- (10) Fleming; US 6159657 A 2000 CAPLUS
- (11) Lee; US 4548893 A 1985 CAPLUS
- (12) Leon; US 6146812 A 2000 CAPLUS
- (13) Leon; US 6190830 B1 2001 CAPLUS
- (14) Leon; US 6190831 B1 2001 CAPLUS
- (15) Leon; US 6365705 B1 2002 CAPLUS
- (16) Li; US 5910395 A 1999 CAPLUS
- (17) Ma; US 5512418 A 1996
- (18) Oohashi; US 6153352 A 2000 CAPLUS
- (19) Pacansky; US 4081572 A 1978 CAPLUS
- (20) Schwartz; US 4693958 A 1987 CAPLUS
- (21) Uhlig; US 4034183 A 1977 CAPLUS
- (22) van Damme; US 6165679 A 2000 CAPLUS
- (23) Yamasaki; US 6242155 B1 2001 CAPLUS

L11 ANSWER 33 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:696263 CAPLUS
DN 137:224182
ED Entered STN: 13 Sep 2002
TI Dithiocarboxylic acid self-assembled monolayers and methods for their use
in microcontact printing
IN Lee, T. Randall; Colorado, Ramon, Jr.
PA USA
SO PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G03F007-00
ICS G03F007-16; B05D001-28
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 66

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2002071151 | A1 | 20020912 | WO 2002-US6481 | 20020306 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2004137148 | A1 | 20040715 | US 2003-471066 | 20030905 |
| PRAI | US 2001-273617P | P | 20010306 | | |
| | WO 2002-US6481 | W | 20020306 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|--|------------|------------------------------------|
| | WO 2002071151 | ICM | G03F007-00 |
| | | ICS | G03F007-16; B05D001-28 |
| | US 2004137148 | ECLA | B05D001/28C |
| OS | MARPAT | 137:224182 | |
| AB | Aliphatic dithiocarboxylic acid compns. (ADTCAs) of the general formula (R)a-R'-(CS ₂ H) _b (R = carbon-containing, fluorinated carbon-containing or fluorocarbon-containing group; R' = carbon-containing group, multivalent | | |

STN search for 10765,797

atom, double bond, heteroatom analog, saturated, unsatd. aromatic ring system;
a,
b = integers the sum of which is less than a maximum number of 4 substituents
R'
can accommodate to form a relatively stable mol. species, with all other
sites being occupied by hydrogen atoms) that form self-assembled
monolayers (SAMs) on metal surface such as gold surfaces are disclosed.
These new SAMs were characterized by optical ellipsometry, contact angle
goniometry, and polarization modulation IR reflection absorption
spectroscopy (PM-IRRAS). The data indicates that the ADTCAs generate well
packed and highly oriented monolayer films on gold surfaces. A method for
using the ADTCAs in micro-contact printing is also disclosed,
where ADTCA SAM protected regions are capable of more efficient cleaning
under mild conditions due to instabilities in the ADTCA compns.
ST aliph dithiocarboxylic acid selfassembled monolayer microcontact
printing
IT Self-assembled monolayers
(dithiocarboxylic acid self-assembled monolayers and methods for their
use in microcontact printing)
IT Lithography
(microcontact printing; dithiocarboxylic acid self-assembled
monolayers and methods for their use in microcontact printing
)
IT 85209-23-0P, Dodecane(dithioic) acid 100534-63-2P, Undecane(dithioic)
acid 110154-16-0P, Heptadecane(dithioic) acid 139759-10-7P,
Octadecane(dithioic) acid 214980-96-8P, Decane(dithioic) acid
214980-97-9P, Tridecane(dithioic) acid 214980-98-0P,
Tetradecane(dithioic) acid 214980-99-1P, Pentadecane(dithioic) acid
214981-00-7P, Hexadecane(dithioic) acid 214981-01-8P,
Nonadecane(dithioic) acid
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(dithiocarboxylic acid self-assembled monolayers and methods for their
use in microcontact printing)
IT 7440-57-5, Gold, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(dithiocarboxylic acid self-assembled monolayers and methods for their
use in microcontact printing)
IT 75-15-0, Carbon disulfide, reactions 106-93-4, 1,2-Dibromoethane
693-58-3, 1-Bromononane 7439-95-4, Magnesium, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of dithiocarboxylic acid derivs. via Grignard addition of
alkylmagnesium bromides to carbon disulfide)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Colorado, R; LANGMUIR 1998, V14(22) CAPLUS
(2) He, H; LANGMUIR 2000, V16(25) CAPLUS
(3) Knobler, C; NATURE 1994, V369(6475), P15
(4) Shon, Y; ORGANIC/INORGANIC HYBRID MATERIALS II, MATERIALS RESEARCH SOCIETY
SYMPOSIUM PROCEEDINGS VOL 576 1999, V576, P183 CAPLUS
(5) Wilbur, J; ADVANCED MATERIALS 1995, V7(7), P649 CAPLUS
(6) Wilbur, J; NANOTECHNOLOGY 1996, V7, P452 CAPLUS
(7) Xia, Y; ANGEWANDTE CHEMIE INTERNATIONAL EDITION 1998, V37, P551
(8) Xia, Y; MICROELECTRONIC ENGINEERING 1996, V32(1/4), P255
(9) Younan, X; JOURNAL OF THE AMERICAN CHEMICAL SOCIETY 1995, V117(11), P3274

L11 ANSWER 34 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:689942 CAPLUS

DN 137:224178

ED Entered STN: 12 Sep 2002

STN search for 10765,797

TI Negative working lithographic printing plate master suitable for direct digital platemaking by IR laser
IN Aoshima, Keitaro
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 22 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-00
 ICS B41N001-14; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2002258467 | A2 | 20020911 | JP 2001-61475 | 20010306 |
| | US 2002189476 | A1 | 20021219 | US 2002-87834 | 20020305 |
| PRAI | JP 2001-61475 | A | 20010306 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| JP 2002258467 | ICM | G03F007-00 |
| | | ICS B41N001-14; G03F007-11 |
| US 2002189476 | ECLA | B41N001/08A; B41N001/14 |

AB The title lithog. printing plate master comprises a support, an alkali-developable photosensitive layer containing a photothermal conversion material and crosslinkable/polymerizable compound, and an overcoat layer containing a hydrophobic, alkali-soluble polymer. The printing plate master shows improved IR laser sensitivity, suppressed ablation of the photosensitive layer, and improved ink reception.

ST lithog printing plate master neg working direct digital platemaking; IR laser direct digital platemaking lithog printing plate master

IT Fluoropolymers, uses

RL: DEV (Device component use); USES (Uses)
(in alkali-developable photosensitive layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT Lithographic plates
(neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT Photoimaging materials
(photopolymerizable; neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 134127-48-3
RL: DEV (Device component use); USES (Uses)
(IR absorber; in alkali-developable photosensitive layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 28854-56-0, Styrene-p-vinylbenzoic acid copolymer 457625-40-0, Ethyl methacrylate-monoacryloyloxyethyl succinate copolymer

RL: DEV (Device component use); USES (Uses)
(hydrophobic alkali-soluble; in overcoat layer of neg. working lithog. printing plate master suitable for direct digital platemaking by IR laser)

IT 85-43-8, Tetrahydrophthalic acid anhydride 104-15-4, p-Toluene sulfonic acid, uses 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 29570-58-9, Dipentaerythritol hexaacrylate 90216-38-9, Allyl

STN search for 10765,797

methacrylate-methacrylic acid copolymer 207793-01-9
RL: DEV (Device component use); USES (Uses)
(in alkali-developable photosensitive layer of neg. working
lithog. printing plate master suitable for direct
digital platemaking by IR laser)
IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl
methacrylate copolymer
RL: DEV (Device component use); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(in alkali-developable photosensitive layer of neg. working
lithog. printing plate master suitable for direct
digital platemaking by IR laser)
IT 19600-49-8, Triphenylsulfonium acetate
RL: DEV (Device component use); USES (Uses)
(onium salt; in alkali-developable photosensitive layer of neg. working
lithog. printing plate master suitable for direct
digital platemaking by IR laser)

L11 ANSWER 35 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:636849 CAPLUS
DN 137:192781
ED Entered STN: 23 Aug 2002
TI Positive working lithographic direct printing plate
for infrared laser exposure, containing novolak type phenolic
resin
IN Nakamura, Ippei
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-00
ICS G03F007-032
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 38

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| PI JP 2002236353 | A2 | 20020823 | JP 2001-32720 | 20010208 |
| PRAI JP 2001-32720 | | 20010208 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| JP 2002236353 | ICM | G03F007-00 |
| | ICS | G03F007-032 |

AB The material has a recording layer containing (1) a water insol. and alkali
soluble novolak type phenolic resin containing methylene linkage $\geq 55\%$ to
total one at an ortho-ortho site to a phenolic OH and (2) an IR
absorber. The layer increases solubility to an alkaline aqueous solution by IR
laser exposure. The material showed improved image formation latitude on
development, contrast, and abrasion resistance.
ST lithog plate laser sensitive IR absorbent; ortho
methylene linkage phenol novolak resin lithog
IT Phenolic resins, preparation
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(novolak; pos.-working lithog. plate containing IR
absorbent and phenol novolak resin with ortho methylene linkage)
IT Lithographic plates

STN search for 10765,797

(pos.-working lithog. plate containing IR absorbent and phenol novolak resin with ortho methylene linkage)

IT 134127-48-3 449762-40-7
RL: TEM (Technical or engineered material use); USES (Uses)
(IR absorbent; pos.-working lithog. plate containing IR absorbent and phenol novolak resin with ortho methylene linkage)

IT 449759-91-5P, m-Cresol-2,2'-dihydroxy-5,5'-dimethyldiphenylmethane-formaldehyde copolymer 449759-94-8P, 2,6-Bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol-m-cresol-p-cresol-formaldehyde copolymer 449759-96-0P, 2,6-Bis(2-hydroxy-5-methylphenylmethyl)-4-methylphenol-m-cresol-formaldehyde-phenol copolymer 449759-98-2P, 2,6-Bis(2-hydroxy-5-fluorophenylmethyl)-4-fluorophenol-m-cresol-formaldehyde copolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos.-working lithog. plate containing IR absorbent and phenol novolak resin with ortho methylene linkage)

L11 ANSWER 36 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:553151 CAPLUS
DN 137:116982
ED Entered STN: 26 Jul 2002
TI Photosensitive resin composition for lithographic printing plates
IN Kawauchi, Ikuo; Akiyama, Keiji; Watanabe, Noriaki; Kawamura, Koichi; Fujita, Kazuo; Serikawa, Takeshi; Nagashima, Akira
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 114 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03F007-004
ICS G03F007-023; G03F007-032; G03F007-033; B41C001-10; B41M005-36
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38

FAN.CNT 2

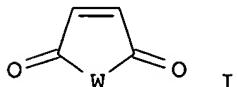
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 1225478 | A2 | 20020724 | EP 2002-7384 | 19990406 |
| | EP 1225478 | A3 | 20020731 | | |
| | R: DE, GB | | | | |
| | JP 11288093 | A2 | 19991019 | JP 1998-93143 | 19980406 |
| | JP 11352681 | A2 | 19991224 | JP 1998-118961 | 19980428 |
| | JP 11327134 | A2 | 19991126 | JP 1998-124884 | 19980507 |
| | JP 2000010281 | A2 | 20000114 | JP 1998-178966 | 19980625 |
| | EP 949539 | A2 | 19991013 | EP 1999-106132 | 19990406 |
| | EP 949539 | A3 | 20000119 | | |
| | EP 949539 | B1 | 20030319 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | US 2002051929 | A1 | 20020502 | US 2001-862497 | 20010523 |
| | US 6746812 | B2 | 20040608 | | |
| PRAI | JP 1998-93143 | A | 19980406 | | |
| | JP 1998-93413 | A | 19980406 | | |
| | JP 1998-118961 | A | 19980428 | | |
| | JP 1998-124884 | A | 19980507 | | |
| | JP 1998-178966 | A | 19980625 | | |
| | EP 1999-106132 | A3 | 19990406 | | |

US 1999-287568 A3 19990406

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| EP 1225478 | ICM | G03F007-004 |
| | ICS | G03F007-023; G03F007-032; G03F007-033; B41C001-10; B41M005-36 |
| EP 1225478 | ECLA | B41C001/10A; B41M005/36S |
| EP 949539 | ECLA | B41C001/10A; B41M005/36S; G03F007/004F; G03F007/023P |
| US 2002051929 | ECLA | B41C001/10A; B41M005/36S; G03F007/004F; G03F007/023P |

GI



AB The present invention relates to a pos. type photosensitive composition for useful in a lithog. printing plate which comprises a novel fluorine-containing polymer. The present invention relates to a pos. type photosensitive composition which gives image-forming property of high contrast in a lithog. printing plate. The present invention relates to a pos. type photosensitive composition which comprises:

(a) a substance which absorbs a light and generates heat; (b) an alkaline aqueous solution-soluble resin having a phenolic hydroxyl group; and

(c) a fluorine-containing polymer containing at least the following (1) an addition polymerizable fluorine-containing monomer having, at the side chain, a fluoro aliphatic group; (2) a monomer represented by $\text{CH}_2=\text{CA}_1[\text{CO-W-R}_2]$, $\text{CH}_2=\text{CA}_1[\text{O-CO-R}_3]$, $\text{CH}_2=\text{CA}_1[\text{U}]$ or I ($\text{A}_1 = \text{H}$, halogen atom, alkyl group; $\text{W} = \text{O}$, $-\text{NR}_1-$; $\text{R}_1 = \text{H}$, alkyl, aryl group; $\text{R}_2 = \text{alkyl, aryl}$; $\text{R}_3 = \text{alkyl, aryl group}$; $\text{U} = \text{cyano, aryl, alkoxy, aryloxy, acyloxymethyl, nitrogen-containing heterocyclic group, } -\text{CH}_2\text{OCOR}_3$); and (3) an addition polymerizable monomer having an acidic hydrogen atom and an acidic group, said acidic hydrogen atom being bonded to a nitrogen atom of the acidic group.

ST lithog printing plate fluorine contg resin compn

IT Lithographic plates

(photosensitive resin composition for)

IT Phenolic resins, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(photosensitive resin composition for lithog. printing plates containing)

IT 207792-99-2P 207793-00-8P 207793-01-9P 246036-07-7P 246036-08-8P

246036-10-2P 246036-11-3P 246036-13-5P 246036-14-6P 246036-16-8P

246036-18-0P 246036-24-8P 246036-27-1P 246036-31-7P 246036-33-9P

443119-14-0P 443119-15-1P 443119-17-3P 443119-19-5P

RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive resin composition for lithog. printing plates containing)

IT 287118-70-1P, Acrylonitrile-N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate-N,N-dimethylacetamide copolymer

RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive resin composition for lithog. printing

STN search for 10765,797

plates containing)
IT 9003-35-4, Formaldehyde-phenol copolymer 9016-83-5, Cresol-formaldehyde copolymer 24979-70-2, Maruka Lyncur M-S 4P 26335-33-1, Formaldehyde-p-n-octylphenol copolymer 153273-61-1
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(photosensitive resin composition for lithog. printing plates containing)
IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions 541-41-3, Ethyl chloroformate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of photosensitive resin composition for lithog. printing plates containing)
IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of photosensitive resin composition for lithog. printing plates containing)

L11 ANSWER 37 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:522484 CAPLUS
DN 137:85989
ED Entered STN: 12 Jul 2002
TI Radiation-sensitive compositions comprising polyvinyl acetals having azido groups for lithographic printing plate
IN Timpe, Hans-joachim; Muller, Ursula
PA Kodak Polychrome Graphics LLC, Germany
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM G03F007-038
NCL 430270100
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

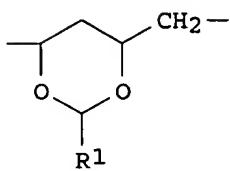
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 2002090566 | A1 | 20020711 | US 2000-751183 | 20001229 |
| | US 6596460 | B2 | 20030722 | | |
| PRAI | US 2000-751183 | | 20001229 | | |

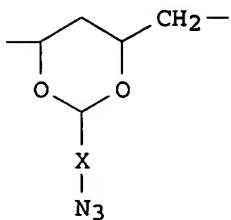
CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| US 2002090566 | ICM | G03F007-038 |
| | NCL | 430270100 |

GI



I



II

AB A polyvinyl acetal copolymer compound comprises the units A, B, C and D, where A = -CH₂-CHOCOR- (R = H, C₁-6-alkyl, -CH=CHCOOH, C₆H₅COOH) is present in an amount of 0.5 to 30 weight%; B = -CH₂CHOH- is present in an amount

of 5 to 35 weight%; C is defined by the formula I (R₁ = C₁-4-alkyl, optionally substituted by an acid, Ph, Z-NR₂-CO-Y-COOH (Z = aliphatic, aromatic or araliph. spacer group; R₂ = H, aliphatic, aromatic, araliph. moiety; Y = saturated or unsatd. chain- or ring-shaped spacer group)) and present in an amount of 10 to 55 weight%, and may have one or more occurrences in the copolymer with various moieties R₁ independent of one another; D is defined by the formula II (X = C₁-6-alkylene; 5 or 6 membered saturated carbocyclic moiety optionally substituted with C₁-4-alkyl, C₁-4-alkoxy, halogen; 5 or 6 membered saturated heterocyclic moiety; C₆H₅(R₃)_n (n = 0-4, R₃ = C₁-4-alkyl, halogen, C₁-4-alkoxy)) and present in an amount of 10 to 40 weight%. A radiation-sensitive composition useful in a lithog.

printing plate comprises (i) the above-described polyvinyl acetal copolymer; and (ii) a light-to-heat transformer compound. The object of the present invention is to provide polymers for radiation-sensitive compns. which ensure a good adhesion to normal aluminum substrates and thus lead to an acceptable number of prints produced without affecting ink receptivity.

ST lithog printing plate aluminum substrate
photosensitive compn polyvinyl acetal

IT Polyvinyl butyrals

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(azido-benzals; radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. printing plate)

IT Lithographic plates

(radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. printing plate)

IT 459-57-4, 4-Fluoro benzaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of polymer radiation-sensitive compns. for lithog. printing plate)

IT 24173-36-2DP, 4-Azido benzaldehyde, cyclic acetals with poly(vinyl alc.)

RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(in preparation of polymer radiation-sensitive compns. for lithog.

STN search for 10765,797

printing plate)

IT 108-31-6DP, Maleic anhydride, reaction products with polyvinyl butyral and azido benzaldehyde or propion aldehyde

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. printing plate)

IT 7429-90-5, Aluminum, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(substrate; radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. printing plate)

L11 ANSWER 38 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:433299 CAPLUS

DN 137:131996

ED Entered STN: 10 Jun 2002

TI Influence of resist components on image blur in a patterned positive-tone chemically amplified photoresist

AU Houle, F. A.; Hinsberg, W. D.; Sanchez, M. I.; Hoffnagle, J. A.

CS IBM Almaden Research Center, San Jose, CA, 95120, USA

SO Journal of Vacuum Science & Technology, B: Microelectronics and Nanometer Structures (2002), 20(3), 924-931

CODEN: JVTBD9; ISSN: 0734-211X

PB American Institute of Physics

DT Journal

LA English

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB Post-exposure bake-induced blurring of the latent image in a chemical amplified photoresist may limit the extendibility of this resist technol. to printing of nanoscale features. It had been proposed that blurring is caused by thermally assisted diffusion of photogenerated acid, however the authors exptl. and kinetic modeling investigations of coupled reaction-diffusion in a resist system consisting of a photoacid generator in poly(p-tert-butyloxycarbonyloxystyrene) (PTBOCST) have shown that the very high efficiency of acidolysis chemical at the edge of an exposed region is actually responsible for blurring. Studies of the role of added base and the impact of photoacid generator size on blur support this view. These previous studies were performed with a one-dimensional (1D) geometry. In order to test the relevance of the 1D blurring model to pattern formation, the authors have carried out new investigations of blurring in dense line-space patterns using the same PTBOCST resist systems as in the earlier work. Resist films were imprinted with 866 and 192 nm pitch gratings generated by interferometric lithog. using 257 nm light. The extent of deprotection over a range of doses and bake times at 85° C was measured by IR spectroscopy and compared to results of simulations of the bake process using the exptl. aerial image and kinetics determined in the previous work. Experiment and predictions are in good agreement in all cases, indicating that the one-dimensional kinetics are extendable to the two-dimensional case. This simulations permit visualization of the relationship between the acid latent image and the developable image that forms in the polymer, enabling a deeper appreciation of the influences of the resist components and of resist processing conditions on latent image transformations during post-exposure bake.

ST image blur pos chem amplified lithog photoresist; thermal acid catalyzed deprotection photoresist imaging

IT Positive photoresists

(chemical-amplified; influence of resist components and processing conditions on latent image transformations and image blur in patterned

STN search for 10765,797

pos. chemical amplified photoresists)
IT Diffusion
 IR reflectance spectra
 (influence of resist components and processing conditions on latent
 image transformations and image blur in patterned pos. chemical amplified
 photoresists)
IT Alkoxycarbonylation kinetics
 (retro, photoacid catalyzed; influence of resist components and
 processing conditions on latent image transformations and image blur in
 patterned pos. chemical amplified photoresists)
IT Reaction kinetics
 (thermal; influence of resist components and processing conditions on
 latent image transformations during post-exposure bake and image blur
 in pos. chemical amplified photoresists)
IT 87261-04-9, Poly(p-tert-butyloxycarbonyloxystyrene)
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PYP (Physical process); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)
 (influence of resist components and processing conditions on latent
 image transformations and image blur in patterned pos. chemical amplified
 photoresists)
IT 375-73-5, Perfluorobutanesulfonic acid 1493-13-6,
Trifluoromethanesulfonic acid
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical
process); PYP (Physical process); TEM (Technical or engineered material
use); FORM (Formation, nonpreparative); PROC (Process); USES (Uses)
 (influence of resist components and processing conditions on latent
 image transformations and image blur in patterned pos. chemical amplified
 photoresists)
IT 2052-49-5, Tetrabutylammonium hydroxide
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
 (influence of resist components and processing conditions on latent
 image transformations and image blur in patterned pos. chemical amplified
 photoresists)
IT 157959-61-0, Bis-tert-butylphenyliodonium trifluoromethanesulfonate
218151-20-3, Bis(tert-butylphenyl)iodonium perfluorobutanesulfonate**
*
RL: CPS (Chemical process); PEP (Physical, engineering or chemical
process); PYP (Physical process); TEM (Technical or engineered material
use); PROC (Process); USES (Uses)
 (photoacid generator; influence of resist components and processing
 conditions on latent image transformations and image blur in patterned
 pos. chemical amplified photoresists)

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L11 ANSWER 39 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:163804 CAPLUS
DN 136:224280
ED Entered STN: 06 Mar 2002
TI Thermal digital ***lithographic printing plate
IN Patel, Jayanti; Saraiya, Shahhikant; Savariar-Hauck, Celin; Huang, Jianbing; Mikell, Frederic; Shimazu, Ken-ichi; Merchant, Nishith
PA Kodak Polychrome Graphics Llc, USA
SO U.S., 16 pp., Cont.-in-part of U.S. 301,866.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03F007-09
NCL 430270100
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | US 6352811 | B1 | 20020305 | US 1999-469490 | 19991222 |
| | US 6352812 | B1 | 20020305 | US 1999-301866 | 19990429 |
| | EP 1506856 | A2 | 20050216 | EP 2004-78162 | 19990608 |
| | R: BE, DE, ES, FR, GB, IT, NL, SE | | | | |
| | EP 1506857 | A2 | 20050216 | EP 2004-78163 | 19990608 |
| | R: BE, DE, ES, FR, GB, IT, NL, SE | | | | |
| | WO 2001045958 | A2 | 20010628 | WO 2000-US42759 | 20001212 |
| | WO 2001045958 | A3 | 20020131 | | |
| | W: BR, JP | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | BR 2000016716 | A | 20020903 | BR 2000-16716 | 20001212 |
| | EP 1263590 | A2 | 20021211 | EP 2000-992907 | 20001212 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| | JP 2003518264 | T2 | 20030603 | JP 2001-546484 | 20001212 |
| | EP 1506983 | A2 | 20050216 | EP 2004-27317 | 20001212 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| PRAI | US 1998-90300P | P | 19980623 | | |
| | US 1999-301866 | A2 | 19990429 | | |
| | EP 1999-928429 | A3 | 19990608 | | |

| | | |
|-----------------|----|----------|
| US 1999-469490 | A | 19991222 |
| EP 2000-992907 | A3 | 20001212 |
| WO 2000-US42759 | W | 20001212 |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|---|------------------------------------|
| US 6352811 | ICM | G03F007-09 |
| | NCL | 430270100 |
| US 6352811 | ECLA | B41C001/10A |
| US 6352812 | ECLA | B41C001/10A |
| AB | A thermal lithog. printing plate, which can be imaged by an IR emitting laser or by a thermal printing head, comprises a hydrophilic substrate, and a composite layer structure composed of two layer coatings. Preferably, the first layer of the composite comprises an aqueous developable polymer mixture containing a solubility | |
| | inhibiting material and a photothermal conversion material. The second layer is ink receptive, insol. in the aqueous solution, and has one or more non-aqueous soluble polymers in it. The plate is exposed with an IR laser or a thermal print head, and upon aqueous development of the imaged plate, the exposed portions are removed to expose hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain the ink-receptive image areas. The second layer may also contain a photothermal conversion material. Alternatively, the composite layer may be free of photothermal conversion material when thermal imaging is carried out using a thermal printing head. | |
| ST | thermal lithog printing plate; pos working thermal image material thermog | |
| IT | Dyes (IR-absorbing; photothermal conversion material used in thermal digital lithog. printing plate) | |
| IT | Fluoropolymers, uses RL: TEM (Technical or engineered material use); USES (Uses) (MP 1100; thermal digital lithog. printing plate containing) | |
| IT | Phenolic resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (novolak; thermal digital lithog. printing plate containing) | |
| IT | Lithographic plates (thermal digital lithog. printing plate imaged by IR laser or thermal printing head) | |
| IT | Imaging (thermal; photothermal conversion material used in thermal digital lithog. printing plate) | |
| IT | 25085-75-0, BKS 5928 RL: TEM (Technical or engineered material use); USES (Uses) (BKS 5928; thermal digital lithog. printing plate containing) | |
| IT | 9004-38-0, CAP RL: TEM (Technical or engineered material use); USES (Uses) (CAP; thermal digital lithog. printing plate containing) | |
| IT | 9039-25-2, LB 6564 RL: TEM (Technical or engineered material use); USES (Uses) (LB 6564; thermal digital lithog. printing plate containing) | |
| IT | 9016-83-5, LB 744 RL: TEM (Technical or engineered material use); USES (Uses) | |

STN search for 10765,797

(LB 744; thermal digital lithog. printing plate containing)
IT 9002-84-0, MP 1100
RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; thermal digital lithog. printing plate containing)
IT 34402-71-6P 178098-73-2P 346587-49-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate for preparing resin used in thermal digital lithog. printing plate)
IT 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(photothermal conversion material and solubility inhibitor used in thermal digital lithog. printing plate)
IT 5496-71-9 27029-76-1, PD 140A 401915-61-5, Spectra IR 830
402474-33-3, IR Sensi
RL: TEM (Technical or engineered material use); USES (Uses)
(photothermal conversion material used in thermal digital lithog. printing plate)
IT 98-32-8 123-30-8, p-Aminophenol 868-77-9 2094-99-7 4083-64-1,
p-Toluene sulfonyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparing resin used in thermal digital lithog. printing plate)
IT 548-62-9, Crystal violet 2390-59-2, Ethyl violet 199444-11-6, KF
654B-PINA
RL: TEM (Technical or engineered material use); USES (Uses)
(solubility inhibitor used in thermal digital lithog. printing plate)
IT 105060-43-3DP, reaction products with aminophenol 346587-46-0P
346587-47-1P 346587-48-2P 346587-50-6P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermal digital lithog. printing plate containing)
IT 9004-70-0, E 950 9011-14-7, Poly(methylmethacrylate) 24936-68-3,
Makrolon 3108, uses 25086-36-6, N 9P 42557-11-9, Silikophen P 50X
76169-06-7 184348-68-3 220970-44-5, Uravar FN6 220971-24-4, PMP 65
220971-25-5, PMP 92 402475-28-9 402489-58-1
RL: TEM (Technical or engineered material use); USES (Uses)
(thermal digital lithog. printing plate containing)

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD

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- (3) Anon; GB 1546633 1979 CAPLUS
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- (13) Anon; EP 0901902 1999 CAPLUS
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L11 ANSWER 40 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:131259 CAPLUS
DN 136:191734
ED Entered STN: 20 Feb 2002
TI Positive-working lithography printing plates for
direct writing with infrared laser beams
IN Oda, Akio; Nakamura, Ippei; Tsuchimura, Toshitaka
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-032
 ICS B41N001-14; G03F007-00; G03F007-004; G03F007-023
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
 Section cross-reference(s): 38
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
----- ----- ----- ----- -----
PI JP 2002055446 A2 20020220 JP 2000-244159 20000811
 US 2002119392 A1 20020829 US 2001-925444 20010810
 US 6689534 B2 20040210
PRAI JP 2000-244159 A 20000811
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
----- ----- -----
JP 2002055446 ICM G03F007-032
 ICS B41N001-14; G03F007-00; G03F007-004; G03F007-023
US 2002119392 ECLA B41C001/10A
AB The printing plate comprises a support having a recording layer
 containing a water-insol. and alkaline-soluble F-containing polymer, e.g.
 novolak, and an
 IR absorbent. The plates are scratch resistant and have wide

STN search for 10765,797

developing latitude.

ST pos lithog printing plate direct writing; IR
laser direct writing lithog plate; fluoropolymer
IR adsorbent lithog plate

IT **Fluoropolymers, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working lithog. printing plates with
water-insol. and alkaline-soluble fluoropolymer layers for direct
writing with IR laser beams)

IT **Lithographic plates**
(presensitized, pos.-working; pos.-working lithog.
printing plates with water-insol. and alkaline-soluble
fluoropolymer layers for direct writing with IR laser
beams)

IT 134127-48-3
RL: MOA (Modifier or additive use); TEM (Technical or engineered material
use); USES (Uses)
(IR adsorbent; pos.-working lithog.
printing plates with water-insol. and alkaline-soluble
fluoropolymer layers for direct writing with IR laser
beams)

IT 13429-24-8D, Hexafluoropropene dimer, ether with m-cresol-p-cresol-
formaldehyde copolymer 27029-76-1D, m-Cresol-p-cresol-formaldehyde
copolymer, ethers with fluorine-containing compds. 27029-76-1D,
m-Cresol-p-cresol-formaldehyde copolymer, perfluoroctanoyl
ether 52835-16-2D, ether with m-cresol-p-cresol-formaldehyde copolymer
400615-48-7, Formaldehyde-3-(trifluoromethoxy)phenol copolymer
400615-49-8, m-Cresol-pentafluorobenzaldehyde copolymer 400615-50-1,
Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl
methacrylate-1H,1H,2H,2H-perfluorohexyl acrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working lithog. printing plates with
water-insol. and alkaline-soluble fluoropolymer layers for direct
writing with IR laser beams)

L11 ANSWER 41 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:63356 CAPLUS
DN 136:126603
ED Entered STN: 23 Jan 2002
TI Supports and heat-sensitive lithographic
printing plates using them
IN Nishio, Kazuyuki; Kuroki, Takaaki; Hiraoka, Saburo; Kojima, Yasuo
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N001-14
ICS G03F007-00; G03F007-09
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2002019315 | A2 | 20020123 | JP 2000-204258 | 20000705 |
| PRAI JP 2000-204258 | | 20000705 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|------------------------------------|
| JP 2002019315 | ICM | B41N001-14 |

ICS G03F007-00; G03F007-09

AB The supports have hydrophilic layers containing particles having the same bone structures with different particle size. The hydrophilic layers may contain self-film-forming fine particles and self-film-nonforming fine particles. The printing plates have hydrophilic layers containing self-film-forming fine particles and image-forming layers whose hydrophilicity is decreased by heat. The printing plates may have image-forming layers containing self-film-forming fine particles and particles which form hydrophobic surface regions by heat. Printing plates showing high hydrophilicity and good printability are obtained without etching.

ST lithog printing support hydrophilic layer
printability; film forming fine particle lithog plate
hydrophilicity

IT Silica gel, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Syloid 7000, Syloid P 403, hydrophilic layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT Acrylic polymers, uses
Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fine particles, hydrophilic layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT Lithographic plates
(supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT Lithographic plates
(supports; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(supports; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 390802-04-7P, Acrylonitrile-ethyl methacrylate-N-(2-hydroxyethyl)methacrylamide-lauryl acrylate-methacrylic acid-methyl methacrylate copolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(binders in transfer layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 1344-28-1, Aluminasol 520, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(colloidal, fine particles, hydrophilic layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 1309-48-4, Magnesium oxide, uses 7631-86-9, Silica, uses 9002-84-0, AD 1 188653-13-6, Snowtex S
RL: TEM (Technical or engineered material use); USES (Uses)
(fine particles, hydrophilic layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 9011-14-7, Jurymer MB-S 167396-56-7, Jurymer MB 10
RL: TEM (Technical or engineered material use); USES (Uses)
(fine particles, image-forming layers; supports having hydrophilic layers for heat-sensitive lithog. plates with good printability)

IT 138988-50-8, Elastron BN 69

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)
(image-forming layers; supports having hydrophilic layers for
heat-sensitive lithog. plates with good
printability)

IT 25038-59-9, Poly(ethylene terephthalate), uses
RL: TEM (Technical or engineered material use); USES (Uses)
(supports; supports having hydrophilic layers for heat
-sensitive lithog. plates with good printability)

IT 9002-88-4
RL: TEM (Technical or engineered material use); USES (Uses)
(waxes, A 101, A 110, image-forming layers; supports having hydrophilic
layers for heat-sensitive lithog. plates with good
printability)

IT 391249-80-2, A 212 (wax)
RL: TEM (Technical or engineered material use); USES (Uses)
(waxes, image-forming layers; supports having hydrophilic layers for
heat-sensitive lithog. plates with good
printability)

L11 ANSWER 42 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:900092 CAPLUS

DN 136:45708

ED Entered STN: 14 Dec 2001

TI Image-formation material and infrared absorber

IN Nakamura, Ippei

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 41 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B41M005-40

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

Section cross-reference(s): 25, 27, 28

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1162078 | A2 | 20011212 | EP 2001-112937 | 20010606 |
| | EP 1162078 | A3 | 20021218 | | |
| | EP 1162078 | B1 | 20050209 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2001347765 | A2 | 20011218 | JP 2000-169180 | 20000606 |
| | US 2002015911 | A1 | 20020207 | US 2001-871724 | 20010604 |
| | US 6727037 | B2 | 20040427 | | |
| | US 2004175649 | A1 | 20040909 | US 2004-790775 | 20040303 |
| PRAI | JP 2000-169180 | A | 20000606 | | |
| | US 2001-871724 | A3 | 20010604 | | |

Cited
1449

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | EP 1162078 | ICM | B41M005-40 |
| | EP 1162078 | ECLA | B41C001/10A; B41M005/36S; B41M005/40F2; C09B023/00B; C09B023/00D; C09B023/08B; C09B023/08D |
| | US 2002015911 | ECLA | B41C001/10A; C09B023/00D; C09B023/08B; C09B023/08D; B41M005/36S; B41M005/40F2; C09B023/00B |
| | US 2004175649 | ECLA | B41C001/10A; B41M005/36S; B41M005/40F2; C09B023/00B; C09B023/00D; C09B023/08B; C09B023/08D |

OS MARPAT 136:45708

AB Heat mode-applicable image-formation materials are described

which comprise a substrate carrying thereon an image-formation layer which contains an IR absorbing agent which has ≥ 1 surface orientation group in the mol. and for which the solubility of the layer in an alkaline aqueous solution is changed by action of radiation in the near-IR range. IR absorbing agents are also described which comprise, in a mol. thereof, a fluorine-containing substituent which have ≥ 5 fluorine atoms, or a polymethine chain of ≥ 5 carbon atoms and an alkyl group of ≥ 8 carbon atoms, the alkyl group being connected to the polymethine chain via any of nitrogen, oxygen and sulfur. Planog. printing plates including the heat mode-applicable image-formation materials are also described.

ST thermal image forming material IR absorber; planog printing plate image forming material IR absorber; IR sensitive image forming material IR absorber

IT Optical materials
(IR absorbers; IR-sensitive image-forming materials and IR absorbers)

IT Photoimaging materials
Recording materials

(IR-sensitive image-forming materials and IR absorbers)

IT IR materials
(absorbers; IR-sensitive image-forming materials and IR absorbers)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak; IR-sensitive image-forming materials and IR absorbers)

IT Lithographic plates
(planog.; IR-sensitive image-forming materials and IR absorbers)

IT 75-36-5, Acetyl chloride 92-50-2, 2-(N-Ethylanilino)ethanol 98-59-9, p-Toluenesulfonyl chloride 108-24-7, Acetic anhydride 108-94-1, Cyclohexanone, reactions 121-44-8, Triethylamine, reactions 124-41-4, Sodium methoxide 335-64-8, Perfluoroctanoyl chloride 647-42-7 1640-39-7, 2,3,3-Trimethylindolenine 2885-00-9, Stearylmercaptan 34451-26-8, 1H,1H,2H,2H-Perfluoroctanethiol 70446-42-3 205744-92-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(IR-sensitive image-forming materials and IR absorbers)

IT 38954-40-4P 51740-38-6P 100609-71-0P 379671-80-4P 379671-81-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(IR-sensitive image-forming materials and IR absorbers)

IT 379671-75-7P 379671-77-9P 379671-79-1P 379671-83-7P 379671-85-9P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(IR-sensitive image-forming materials and IR absorbers)

IT 24979-70-2, Poly p-hydroxystyrene 90216-38-9, Allyl methacrylate methacrylic acid copolymer 162846-57-3 287925-54-6
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-sensitive image-forming materials and IR absorbers)

L11 ANSWER 43 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:788578 CAPLUS
DN 135:336952

STN search for 10765,797

ED Entered STN: 31 Oct 2001
TI Heat-sensitive lithographic plate containing
 microcapsule
IN Kurihara, Masaaki; Takahashi, Motoaki
PA Asahi Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N001-14
 ICS G03F007-00; G03F007-004; G03F007-032
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2001301348 | A2 | 20011031 | JP 2000-116152 | 20000418 |
| PRAI JP 2000-116152 | | 20000418 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|--|
| JP 2001301348 | ICM | B41N001-14 |
| | | ICS G03F007-00; G03F007-004; G03F007-032 |

AB In the material comprising a support coated with a heat
 -sensitive layer containing microcapsules forming hydrophobic part by
 heating and a hydrophilic binder forming three-dimensionally
 crosslinked hydrophilic part, the microcapsules are formed as microcapsule
 dispersion and purified. The material showed improved printing
 durability, preventing background stain.

ST heat sensitive lithog plate purified hydrophobic
 microcapsule; hydrophilic binder heat sensitive lithog
 plate; hollow fiber membrane filtration microcapsule purifn;
 centrifugation purifn microcapsule

IT Lithographic plates
 Microcapsules
 (heat-sensitive lithog. plate containing purified
 hydrophobic microcapsule and hydrophilic binder)

IT Membranes, nonbiological
 (hollow-fiber; microcapsule purified by hollow fiber membrane
 filtration for heat-sensitive lithog. plate)

IT Centrifugation
 (microcapsule purified by centrifugation for heat-sensitive
 lithog. plate)

IT Filtration
 (microcapsule purified by hollow fiber membrane filtration for
 heat-sensitive lithog. plate)

IT Fluoropolymers, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (microcapsule purified by hollow fiber membrane filtration for
 heat-sensitive lithog. plate)

IT Polyurethanes, preparation
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
 (Preparation); USES (Uses)
 (microcapsule shell; heat-sensitive lithog. plate
 containing purified hydrophobic microcapsule and hydrophilic binder)

IT 25014-41-9, ACP 1010
 RL: NUU (Other use, unclassified); USES (Uses)
 (ACP 1010; microcapsule purified by hollow fiber membrane filtration
 for heat-sensitive lithog. plate)

STN search for 10765,797

IT 141714-54-7P, Kayasorb IR 820B
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(Kayasorb IR 820B, IR absorbent; heat
-sensitive lithog. plate containing purified hydrophobic
microcapsule and hydrophilic binder)

IT 7440-44-0, Activated Carbon, uses
RL: NUU (Other use, unclassified); USES (Uses)
(activated; microcapsule purified by activated carbon for heat
-sensitive lithog. plate)

IT 9005-37-2, Duckloid LF
RL: REM (Removal or disposal); PROC (Process)
(emulsifier; heat-sensitive lithog. plate containing
purified hydrophobic microcapsule and hydrophilic binder)

IT 7446-70-0, Aluminum chloride, uses 7646-78-8, Tin chloride (SnCl4), uses
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(heat-sensitive lithog. plate containing purified
hydrophobic microcapsule and hydrophilic binder)

IT 9003-01-4, Jurymer AC 10MP
RL: DEV (Device component use); USES (Uses)
(hydrophilic binder; heat-sensitive lithog. plate
containing purified hydrophobic microcapsule and hydrophilic binder)

IT 40623-75-4P, Acrylic acid-2-acrylamido-2-methylpropanesulfonic acid
copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(hydrophilic binder; heat-sensitive lithog. plate
containing purified hydrophobic microcapsule and hydrophilic binder)

IT 24937-79-9, TP 113
RL: NUU (Other use, unclassified); USES (Uses)
(microcapsule purified by hollow fiber membrane filtration for
heat-sensitive lithog. plate)

IT 369611-42-7P, Coronate L-glycidyl methacrylate copolymer 369611-43-8P,
Glycidyl methacrylate-toluylene diisocyanate-trimethylolpropane adduct
(3:1) copolymer 369611-44-9P, Glycidyl methacrylate-toluylene
diisocyanate-trimethylolpropane adduct (3:1)-trimethylolpropane
triacrylate copolymer 369611-45-0P, Coronate L-glycidyl
methacrylate-trimethylolpropane triacrylate copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PUR (Purification or recovery); PREP (Preparation); USES (Uses)
(microcapsule shell; heat-sensitive lithog. plate
containing purified hydrophobic microcapsule and hydrophilic binder)

L11 ANSWER 44 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:780992 CAPLUS
DN 135:318863
ED Entered STN: 26 Oct 2001
TI Hydrogenated ring-opening metathesis copolymers and process for producing
the same
IN Yamamoto, Yoshihiro; Sunaga, Tadahiro; Hamada, Tetsuya; Ikeda, Keiichi;
Shibahara, Ritsuko; Io, Hirofumi; Ochiai, Takashi
PA Mitsui Chemicals, Inc., Japan
SO PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C08G061-06
CC 35-7 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 38, 74, 76

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2001079324 | A1 | 20011025 | WO 2001-JP3139 | 20010412 |
| | W: CN, KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | JP 2001354756 | A2 | 20011225 | JP 2001-114075 | 20010412 |
| | EP 1275676 | A1 | 20030115 | EP 2001-919897 | 20010412 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| | US 2002165328 | A1 | 20021107 | US 2002-9565 | 20020328 |
| | US 6800720 | B2 | 20041005 | | |
| PRAI | JP 2000-111646 | A | 20000413 | | |
| | WO 2001-JP3139 | W | 20010412 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|---------------|------|------------------------|
| WO 2001079324 | ICM | C08G061-06 |
| EP 1275676 | ECLA | C08G061/06; C08G061/08 |
| US 2002165328 | ECLA | C08G061/08 |

AB The copolymers with good photo-sensitivity and resistance to heat, useful as pos. resists for high-resolution lithog. patterning of circuit boards, are based on specific cyclic olefin compds. bearing cyclic alkyl tertiary ester groups and cyclic olefin compds. bearing fused lactone ring, their hydrolyzed products or modified esters. Thus, dissolving 3,6-epoxy-1,2,3,6-tetrahydrophthalide and 8-(1'-ethylcyclopentoxy)carbonyltetracyclo[4.4.0.12,5.17,10]-3-dodecene in THF, adding W(N-2,6-Me2C6H3) (CHCHCMe2) (OC(CF3)2Me)2 (PMe3) catalyst, mixing at room temperature for 1 h, killing the reaction with Bu aldehyde and working up gave a metathesis polymer which was hydrogenated and combined with acid generator and other additive to give a composition for use as photoresist.

ST elec circuit board lithog patterning photoresist hydrogenated metathesis polymer

IT Positive photoresists

Printed circuit boards
(hydrogenated ring-opening metathesis copolymers and process for producing same)

IT Polymerization
(metathetic; hydrogenated ring-opening metathesis copolymers and process for producing same)

IT 66003-78-9, Triphenylsulfonium trifluoromethylsulfonate 144317-44-2, Triphenylsulfonium perfluorobutanesulfonate
RL: CAT (Catalyst use); USES (Uses)

(catalyst; hydrogenated ring-opening metathesis copolymers and process for producing same)

IT 3174-74-1DP, esters with partially hydrolyzed tertiary cyclic alkyl ester-containing metathesis copolymers 368872-75-7DP, partially hydrolyzed and hydrogenated, optionally re-esterified with dihydropyran 368872-76-8DP, partially hydrolyzed and hydrogenated 368872-78-0DP, hydrogenated 368872-79-1DP, hydrogenated, hydrolyzed 368872-80-4DP, hydrogenated, hydrolyzed 368872-82-6DP, hydrogenated 368872-84-8DP, hydrogenated 368872-85-9DP, hydrogenated 368872-87-1DP, hydrogenated 368872-88-2DP, hydrogenated 368872-90-6DP, hydrogenated 368872-92-8DP, hydrogenated, partially hydrolyzed 368872-94-0DP, hydrogenated
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(hydrogenated ring-opening metathesis copolymers and process for

STN search for 10765,797

producing same)
IT 368872-74-6DP, hydrogenated
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(photoresist; hydrogenated ring-opening metathesis copolymers and
process for producing same)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Fuji Photo Film Co Ltd; JP 11327144 A 1999 CAPLUS
(2) Mitsui Chemicals Ltd; JP 11171982 A 1999 CAPLUS

L11 ANSWER 45 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:375396 CAPLUS

DN 134:368358

ED Entered STN: 24 May 2001

TI Articles having imageable coatings for preparation of lithographic
printing plates and electronic parts

IN Shimazu, Ken; Parsons, Gareth Rhodri; Riches, John David

PA Kodak Polychrome Graphics Company Ltd., USA

SO Eur. Pat. Appl., 27 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B41C001-10

ICS B41M005-36

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 74, 76

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1101608 | A1 | 20010523 | EP 2000-310097 | 20001114 |
| | EP 1101608 | B1 | 20050119 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | US 6300038 | B1 | 20011009 | US 1999-444125 | 19991119 |
| PRAI | US 1999-444125 | A | 19991119 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|------------|------|--------------------------|
| EP 1101608 | ICM | B41C001-10 |
| | ICS | B41M005-36 |
| EP 1101608 | ECLA | B41C001/10A; B41M005/36S |
| US 6300038 | ECLA | B41C001/10A; B41M005/36S |

AB The precursor coating comprises a substrate and a polymeric coating
comprising a polymeric matrix (LB 6564) and polymeric particles
[polyethylene and PTFE powder (Fluoroslip 525)], wherein the
matrix is soluble in an organic solvent and the particles are insol. in the
organic

solvent, the coating having the property that when imagewise
heated and then subjected to an aqueous developer, heated
regions of the layer are selectively removed by the aqueous developer leaving
behind unheated regions.

ST coating precursor image lithog printing plate; elec
part coating precursor PTFE particle; phenolic resin coating
printing plate

IT Electric apparatus

Lithographic plates
(articles having imageable coatings for preparation of lighog.
printing plates and electronic parts)

STN search for 10765,797

IT **Fluoropolymers, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(particles, Shamrock SST 3D, Shamrock SST 4; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT **Phenolic resins, uses**
Polyamides, uses
RL: MOA (Modifier or additive use); USES (Uses)
(particles; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 9016-83-5, Bakelite LB 744 9039-25-2, Bakelite LB 6564 199444-11-6, KF 654B-Pina
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 9002-88-4, HDPE
RL: MOA (Modifier or additive use); USES (Uses)
(particles, Shamrock S 395N5; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 9002-84-0, PTFE
RL: MOA (Modifier or additive use); USES (Uses)
(particles, Shamrock SST 3D, Shamrock SST 4; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 24937-16-4, Orgasol 2001UD NAT 2 340255-25-6, Fluoroslip 525
RL: MOA (Modifier or additive use); USES (Uses)
(particles; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

IT 79-10-7D, Acrylic acid, polymers 9002-89-5, Poly(vinyl alcohol)
9003-01-4, Poly(acrylic acid) 9003-05-8, Polyacrylamide 9003-53-6,
Polystyrene 9004-34-6, Hydroxycellulose, uses 9032-53-5,
Carboxycellulose 24937-72-2, Poly(maleic anhydride) 25014-12-4,
Polymethacrylamide 25014-41-9, Polyacrylonitrile 25087-26-7,
Poly(methacrylic acid) 25721-74-8, Polymaleimide 59269-51-1,
Polyhydroxystyrene
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polymeric matrix; articles having imageable coatings for preparation of lighog. printing plates and electronic parts)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Agfa-Gevaert; EP 0832739 A 1998 CAPLUS
(2) Kodak; EP 0689096 A 1995 CAPLUS

L11 ANSWER 46 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:299116 CAPLUS

DN 134:318728

ED Entered STN: 27 Apr 2001

TI Lithographic printing without using alkali developer

IN Nakayama, Takao; Mori, Nobumitsu; Nakamura, Takashi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

ICS G03F007-004; G03F007-075; G03F007-11; G03F007-36; G03F007-42

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

STN search for 10765,797

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2001117218 | A2 | 20010427 | JP 1999-299569 | 19991021 |
| PRAI | JP 1999-299569 | | 19991021 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|---------------|-------|---|
| | JP 2001117218 | ICM | G03F007-00 |
| | | ICS | G03F007-004; G03F007-075; G03F007-11; G03F007-36; G03F007-42 |

AB The method comprises imagewise exposure of a presensitized lithog. plate having a metal oxide layer coated with fluoroalkylsilicons, followed by contacting water-thinned or lyophilic inks to the exposure areas to obtain printable ink images. After the printing, the plate is heated or irradiated with light after removal of the remaining inks to remove the fluoroalkylsilicon layer for repeated use. The method enables direct manufacture of pos.-working printing plates without using developers and the plates are easily recyclable.

ST lithog printing metal oxide fluoroalkyl silicon lamination; pos lithog printing alkali developer free

IT Lithographic plates
Lithography

(lithog. printing without using alkali developer)

IT 675-62-7, Methyl-3,3,3-trifluoropropylidchlorosilane 335357-23-8
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(lithog. printing without using alkali developer)

IT 13463-67-7P, Titania, preparation 145035-13-8P, Cesium lanthanum niobium titanium oxide (CsLa2NbTi2O10)
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(lithog. printing without using alkali developer)

L11 ANSWER 47 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:819308 CAPLUS

DN 132:71387

ED Entered STN: 30 Dec 1999

TI Thermal imaging material for lithographic plate preparation

IN Shimazu, Ken-ichi; Patel, Jayanti; Saraiya, Shashikant; Merchant, Nishith; Savariar-Hauck, Celin; Timpe, Hans-joachim; McCullough, Christopher D.

PA Kodak Polychrome Graphics Llc, USA

SO PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | WO 9967097 | A2 | 19991229 | WO 1999-US12689 | 19990608 |
| | W: JP | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | US 6352812 | B1 | 20020305 | US 1999-301866 | 19990429 |
| | JP 2002518715 | T2 | 20020625 | JP 2000-555763 | 19990608 |

| | | | | |
|-----------------------------------|----|----------|---------------|----------|
| EP 1506856 | A2 | 20050216 | EP 2004-78162 | 19990608 |
| R: BE, DE, ES, FR, GB, IT, NL, SE | | | | |
| EP 1506857 | A2 | 20050216 | EP 2004-78163 | 19990608 |
| R: BE, DE, ES, FR, GB, IT, NL, SE | | | | |
| PRAI US 1998-90300P | P | 19980623 | | |
| US 1999-301866 | A | 19990429 | | |
| EP 1999-928429 | A3 | 19990608 | | |
| WO 1999-US12689 | W | 19990608 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
| WO 9967097 | ICM | B41M |
| WO 9967097 | ECLA | B41C001/10A |
| US 6352812 | ECLA | B41C001/10A |

AB A thermal imaging material which can be imaged by imagewise exposure with an IR laser or a thermal head and suited for lithog. plate preparation comprises a hydrophilic substrate and a two-layer coating. The first layer of the coating comprises an aqueous solution-developable polymer mixture containing a photothermal conversion material which is contiguous to the hydrophilic substrate. The second layer of the coating comprises one or more non-aqueous solution-soluble polymers which are soluble or dispersible in a solvent which does not dissolve the first layer. The material is exposed with an IR laser or a thermal head and upon development of the imaged material in an aqueous solution, the exposed portions are removed exposing hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain ink-receptive image areas. The second layer may also contain a photothermal conversion material.

ST IR laser thermal imaging material lithog plate prepn

IT Lithographic plates

(IR-laser-sensitive thermal imaging materials with two polymer layers on hydrophilic substrates for preparation of)

IT Thermal printing materials

(IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(Special Black 250; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)
(carboxy-containing, T 71; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)
(dimethylmaleimido-containing, AK 128; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer

STN search for 10765,797

layers containing)

IT Recording materials
(thermal, IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT 9011-14-7, Poly(methyl methacrylate)
RL: TEM (Technical or engineered material use); USES (Uses)
(A 21; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-53-6, Polystyrene 9004-38-0, Cellulose acetate phthalate 9004-70-0, E950 9010-88-2, Acryloid B-82 25608-33-7, Acryloid B-66 27029-76-1, PD 140A 58229-85-9, Acryloid B-44 73546-46-0D, reaction products with mesylenesulfonic acid 106209-33-0, SMA-1000 134127-48-3 253270-56-3, Carboset 500 253272-47-8, Nega 107
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9002-84-0
RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 58748-38-2
RL: TEM (Technical or engineered material use); USES (Uses)
(National Starch 28-2930; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-35-4, SD 140
RL: TEM (Technical or engineered material use); USES (Uses)
(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 58206-31-8
RL: TEM (Technical or engineered material use); USES (Uses)
(Scripset 540, Scripset 550; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

L11 ANSWER 48 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:802696 CAPLUS
DN 132:36793
ED Entered STN: 21 Dec 1999
TI Fiber-reinforced plastic-made apparatus for use in the electrolytic treatment of lithographic plate supports
IN Matsuura, Atsushi; Kakumoto, Atsushi; Uesugi, Akio
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N003-03
ICS C25F007-00
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 47, 72, 74
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|-------|------------------------------------|-----------------|----------|
| PI JP 11348450 | A2 | 19991221 | JP 1998-162086 | 19980610 |
| PRAI JP 1998-162086 | | 19980610 | | |
| CLASS | | | | |
| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | | |
| JP 11348450 | ICM | B41N003-03 | | |

ICS C25F007-00

AB The apparatus comprises a treatment tank filled with electrolyte liquid, where the tank has multiple electrodes and insulation plates between them along the tank peripheral surface, and an internal guiding roller having cylindrical shape in middle. The wall of the tank is constructed with a structural skeleton layer made from metal or fiber-reinforced plastic and a layer made from acid- and heat-resistant materials such as PVC for direct contact with electrolyte liquid. The guiding roller is constructed with a structural skeleton layer made from metal or fiber-reinforced and a layer made from acid- and heat-resistant materials such as PVC for direct contact with electrolyte liquid.

ST lithog printing plate support electrolytic treatment tank; fiber reinforced plastic electrolytic treatment tank; acid heat resistant fiber reinforced plastic tank

IT Ceramics
Electrolytes
Electrolytic cells
Lithographic plates
Nonwoven fabrics
Tanks (containers)
(fiber-reinforced plastic-made apparatus for use in electrolytic treatment of lithog. plate supports)

IT Fluoropolymers, uses
Polythiophenylenes
RL: DEV (Device component use); USES (Uses)
(fiber-reinforced plastic-made apparatus for use in electrolytic treatment of lithog. plate supports)

IT Reinforced plastics
RL: DEV (Device component use); USES (Uses)
(fiber-reinforced; fiber-reinforced plastic-made apparatus for use in electrolytic treatment of lithog. plate supports)

IT 7429-90-5, Aluminum, uses 9002-86-2, PVC
RL: DEV (Device component use); USES (Uses)
(fiber-reinforced plastic-made apparatus for use in electrolytic treatment of lithog. plate supports)

L11 ANSWER 49 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:698292 CAPLUS
DN 131:311489
ED Entered STN: 02 Nov 1999
TI Laminate film for printing and adhesive film using the same
IN Sawamura, Shinya; Kogo, Yuichi; Mizuno, Seinosuke
PA Dainippon Ink and Chemicals, Inc., Japan; Nippon Ply K. K.
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM C09J007-02
ICS B32B027-36; B41M001-30
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 11302612 | A2 | 19991102 | JP 1998-110611 | 19980421 |
| PRAI | JP 1998-110611 | | 19980421 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 11302612 | ICM | C09J007-02 |

ICS B32B027-36; B41M001-30

AB The title laminate film comprises a heat-resistant polyester film and a thermoplastic film(s) laminated on the heat-resistant polyester film via a temporary adhesive layer. The heat-resistant polyester film has a thickness of 12-800 µm. The temporary adhesive layer is made of polyethylene or polypropylene and prepared by extrusion coating. The temporary adhesive layer may be made of specific acrylic or urethane adhesives. The thermoplastic film shows specified optical characteristics and have a thickness of 1-200 µm. Color designs are printed on the laminate film by gravure, silk-screen, offset or ink-jet printings and then a double stick tape is laminated on the printed laminate film to form the adhesive film.

ST laminate film heat resistant polyester thermoplastic temporary adhesive

IT Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(heat-resistant support of laminate film for printing
)

IT Adhesive films
Gravure printing
Ink-jet printing
(laminate film for printing and adhesive film using the same)

IT Laminated plastics, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(laminate film for printing and adhesive film using the same)

IT Lithography
(offset; laminate film for printing and adhesive film using the same)

IT Printing (nonimpact)
(silk-screen; laminate film for printing and adhesive film using the same)

IT Acrylic polymers, uses
Fluoropolymers, uses
Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(thermoplastic films of laminate film for printing)

IT 9002-88-4, Polyethylene
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(temporary adhesive layer of laminate film for printing)

IT 9002-86-2, Polyvinylchloride
RL: TEM (Technical or engineered material use); USES (Uses)
(thermoplastic films of laminate film for printing)

L11 ANSWER 50 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:672335 CAPLUS
DN 131:305170
ED Entered STN: 22 Oct 1999
TI Positive thermal imaging element for lithographic plate preparation
IN Verschueren, Eric; Geerts, Peter
PA Agfa-Gevaert N.V., Belg.
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM B41C001-10
 ICS B41M005-36
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 950516 | A1 | 19991020 | EP 1999-200509 | 19990223 |
| | EP 950516 | B1 | 20040506 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | US 6340815 | B1 | 20020122 | US 1999-267636 | 19990315 |
| | JP 2000131830 | A2 | 20000512 | JP 1999-103875 | 19990412 |
| PRAI | EP 1998-201214 | A | 19980415 | | |
| | US 1998-89286P | P | 19980615 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|------------|-------|------------------------------------|
| | EP 950516 | ICM | B41C001-10 |
| | | ICS | B41M005-36 |
| | EP 950516 | ECLA | B41C001/10A; B41M005/36S |
| | US 6340815 | ECLA | B41M005/36S |

AB According to the present invention there is provided a pos. thermal imaging element for lithog. plate preparation having on a lithog. plate base with a hydrophilic surface a first layer including a polymer soluble in an aqueous alkaline developer and a top layer which is

IR-sensitive and unpenetrable by an aqueous alkaline developer wherein the first layer and the top layer may be one and the same layer, characterized in that the top layer contains a compound that increases the dynamic friction coefficient of the top layer to between 0.40 and 0.80.

ST pos thermal imaging element polymer lithog plate

IT Silsesquioxanes

RL: TEM (Technical or engineered material use); USES (Uses)
(Me, Tospearl 105; pos. thermal imaging materials for lithog. plate preparation containing)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(PTFE modified polyethylene wax; pos. thermal imaging materials for lithog. plate preparation containing)

IT Polysiloxanes, uses

Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene-, graft, Tego Glide 410; pos. thermal imaging materials for lithog. plate preparation containing)

IT Polyoxyalkylenes, uses

Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polysiloxane-, graft, Tego Glide 410; pos. thermal imaging materials for lithog. plate preparation containing)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(pos. thermal imaging materials for lithog. plate preparation containing)

IT Lithographic plates

(pos. thermal imaging materials with IR-sensitive top layers containing compds. for increasing dynamic friction coefficient for preparation of)

IT Thermal printing materials

(pos.; with IR-sensitive top layers containing compds. for increasing dynamic friction coefficient for lithog. plate preparation)

IT Recording materials

(thermal, pos.; with IR-sensitive top layers containing compds.

STN search for 10765,797

for increasing dynamic friction coefficient for lithog. plate preparation)

IT 9002-84-0, PTFE 9002-88-4, Polyethylene
RL: TEM (Technical or engineered material use); USES (Uses)
(PTFE modified polyethylene wax; pos. thermal imaging materials for lithog. plate preparation containing)

IT 7727-43-7, Barium sulfate
RL: TEM (Technical or engineered material use); USES (Uses)
(Spezialsorte AI; pos. thermal imaging materials for lithog. plate preparation containing)

IT 7631-86-9, Aerosil 200, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(colloidal; pos. thermal imaging materials for lithog. plate preparation containing)

IT 78-10-4, Dynasil A 118-41-2, 3,4,5-Trimethoxybenzoic acid, uses
9004-70-0, Nitrocellulose 25038-71-5, Ethylene-tetrafluoroethylene copolymer 86753-78-8, Solsperse 5000 100346-90-5, Alnovol SPN452 199297-67-1, Solsperse 28000 240813-58-5, Tego Wet 265 247078-78-0, Newkem TF 320
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. thermal imaging materials for lithog. plate preparation containing)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Agfa-Gevaert N V; GB 1245924 A 1971
- (2) Agfa Gevaert Nv; EP 0830941 A 1998
- (3) Agfa Gevaert Nv; EP 0864420 A 1998 CAPLUS
- (4) Gevaert-Agfa N V; FR 1561957 A 1969
- (5) Mitsubishi Chem Corp; EP 0823327 A 1998 CAPLUS
- (6) Smith, D; US 5448066 A 1995 CAPLUS

L11 ANSWER 51 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:640775 CAPLUS

DN 131:264817

ED Entered STN: 08 Oct 1999

TI Waterless lithographic plate

IN Ray, Kevin Barry; McCullough, Christopher David

PA Kodak Polychrome Graphics Co., Ltd., USA

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41C001-10

ICS B41M005-36; C08G008-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9950069 | A1 | 19991007 | WO 1999-GB979 | 19990329 |
| | W: BR, CA, CN, JP, RU, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1079973 | A1 | 20010307 | EP 1999-913479 | 19990329 |
| | EP 1079973 | B1 | 20030108 | | |
| | R: DE, GB | | | | |
| | JP 2002509821 | T2 | 20020402 | JP 2000-541008 | 19990329 |
| | US 6416932 | B1 | 20020709 | US 2000-669991 | 20000926 |
| PRAI | GB 1998-6478 | A | 19980327 | | |
| | WO 1999-GB979 | W | 19990329 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|--|--------------------------------------|
| WO 9950069 | ICM | B41C001-10 |
| | ICS | B41M005-36; C08G008-32 |
| WO 9950069 | ECLA | B41C001/10A; B41M005/36S; C08G008/32 |
| US 6416932 | ECLA | B41C001/10A; B41M005/36S; C08G008/32 |
| AB | <p>A method of producing a resist pattern on a substrate using a precursor comprising a coating composition which includes a heat-sensitive polymeric substance having functional groups Q thereon (wherein groups Q may be siloxane or optionally substituted fluoroalkyl groups) wherein groups Q cause the polymeric substance to have a reduced adhesive interaction with an ink for use in waterless lithog. printing compared to the polymeric substance in the absence of the groups, the method including the step of causing the patternwise application of heat to the coating composition and optional development thereby to define ink-accepting areas in heat-exposed areas and non-ink-accepting areas in nonexposed areas.</p> | |
| ST | <p>waterless lithog plate heat sensitive polymer compn; siloxane thermal imaging compn lithog plate; fluoroalkyl group polymer thermosensitive compn lithog plate</p> | |
| IT | <p>Thermal printing materials (laser-sensitive; containing IR-absorbing dyes and polymers with functional groups for waterless lithog. plate preparation)</p> | |
| IT | <p>Recording materials (thermal, laser-sensitive; containing IR-absorbing dyes and polymers with functional groups for waterless lithog. plate preparation)</p> | |
| IT | <p>Lithographic plates (waterless; laser-sensitive thermal imaging materials containing polymers with functional groups for preparation of)</p> | |
| IT | <p>9039-25-2, LB 6564 RL: TEM (Technical or engineered material use); USES (Uses) (LB 6564; laser-sensitive thermal imaging materials for waterless lithog. plate preparation containing polymers with functional groups and)</p> | |
| IT | <p>245113-67-1, LB 6564 pentadecafluorooctanoate RL: TEM (Technical or engineered material use); USES (Uses) (laser-sensitive thermal imaging materials for waterless lithog. plate preparation containing IR-absorbing dyes and)</p> | |
| RE.CNT | <p>11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD</p> | |
| RE | | |
| (1) | <p>Hearson, J; WO 9921725 A 1999 CAPLUS</p> | |
| (2) | <p>Hoechst Ag; EP 0164059 A 1985 CAPLUS</p> | |
| (3) | <p>Horsell Graphic Ind Ltd; WO 9901795 A 1999 CAPLUS</p> | |
| (4) | <p>Kodak Polychrome Graphics Llc; WO 9911458 A 1999 CAPLUS</p> | |
| (5) | <p>Macdermid Inc; EP 0557138 A 1993 CAPLUS</p> | |
| (6) | <p>Miller, G; US 5705322 A 1998 CAPLUS</p> | |
| (7) | <p>Neos Co Ltd; JP 01056714 A 1989 CAPLUS</p> | |
| (8) | <p>Neos Co Ltd; JP 01144411 A 1989 CAPLUS</p> | |
| (9) | <p>Ricoh Kk; DE 2648278 A 1977 CAPLUS</p> | |
| (10) | <p>Ricoh Kk; DE 4010275 A 1990 CAPLUS</p> | |
| (11) | <p>Watanabe, Y; US 5200762 A 1993 CAPLUS</p> | |
| L11 | <p>ANSWER 52 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN</p> | |
| AN | <p>1999:498632 CAPLUS</p> | |
| DN | <p>131:163384</p> | |
| ED | <p>Entered STN: 11 Aug 1999</p> | |
| TI | <p>Negative-type image recording material containing fluorocopolymer</p> | |
| IN | <p>Aoshima, Keitaro</p> | |

STN search for 10765,797

PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 51 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-00
ICS B41N001-14; G03F007-004; G03F007-038
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 11218903 | A2 | 19990810 | JP 1998-22404 | 19980203 |
| PRAI | JP 1998-22404 | | 19980203 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|-------------|-------|--------------------------------------|
| | JP 11218903 | ICM | G03F007-00 |
| | | ICS | B41N001-14; G03F007-004; G03F007-038 |

AB The material contains (A) a light- or heat-decomposable acid generator, (B) a crosslinking agent by an acid, (C) an alkali-soluble resin, (D) a UV absorber, and (E) a copolymer containing a aliphatic fluorogroup -containing monomer, a monomer selected from CH₂:CA(COWR1SO₂NHR₂), CH₂:CA(COWR1NHSO₂R₄), CH₂:CA[CONR₃(X)mY(OH)_n], and CH₂:CA[Z(X)mY(OH)_n] [A = H, halogen, alkyl; W = O, NR₃; R₁ = alkylene, arylene; R₂, 3 = H, alkyl, aryl; R₄₋₆ = alkyl, aryl; Y, Z = arylene; X = divalent organic group comprising C, N, O, S, halogen, H; m = 0-1 integer; n = 1-3 integer], and a monomer selected from CH₂:CA(COWR5), CH₂:CA(OCOR6), CH₂:CA(U), and I (U = cyano, aryl, alkoxy, aryloxy, acyloxymethyl, N-containing heterocyclic, CH₂OCOR6). The material is useful for a lithog.

printing plate using a solid laser and a semiconductor laser.

ST neg image recording material fluorocopolymer; IR laser
direct lithog printing plate

IT IR lasers

Lithographic plates
(neg. image recording material containing fluorocopolymer using
IR laser)

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(neg. image recording material containing fluorocopolymer using
IR laser)

IT 236754-89-5P, 2-Ethylhexylmethacrylate-2-(perfluorooctyl

)ethylacrylate-N-(4-sulfamoylphenyl)methacrylamide copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(neg. image recording material containing fluorocopolymer using
IR laser)

L11 ANSWER 53 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:800085 CAPLUS

DN 130:59115

ED Entered STN: 22 Dec 1998

TI Methods of imaging and printing with positive-working IR
-sensitive lithographic plate

IN Miller, Gary A.; Felker, Melanie A.; West, Paul R.; Gurney, Jeffery A.;
Haley, Neil F.

PA Kodak Polychrome Graphics, L.L.C., USA

SO PCT Int. Appl., 34 pp.

STN search for 10765,797

CODEN: PIXXD2
DT Patent
LA English
IC ICM G03F007-32
 ICS B41C001-10
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9854621 | A1 | 19981203 | WO 1998-US8779 | 19980430 |
| | W: CA, CN, JP | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | US 6083662 | A | 20000704 | US 1997-866736 | 19970530 |
| | EP 985166 | A1 | 20000315 | EP 1998-918883 | 19980430 |
| | R: DE, FR, GB | | | | |
| PRAI | US 1997-866736 | A | 19970530 | | |
| | WO 1998-US8779 | W | 19980430 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|------------|-------|------------------------------------|
| | WO 9854621 | ICM | G03F007-32 |
| | | ICS | B41C001-10 |
| | WO 9854621 | ECLA | B41C001/10A; G03F007/32A |
| | US 6083662 | ECLA | B41C001/10A; G03F007/32A |

AB A pos.-working IR-sensitive lithog. plate is used to provide a pos. image without a post-exposure baking step and without any floodwise exposure steps. The lithog. plate includes a layer that is imageable using an IR laser. This layer consists essentially of a phenolic resin, an IR-absorbing compound, and a dissoln. inhibitor that is nonphotosensitive and is capable of providing sites for hydrogen bonding with the phenolic moieties of the binder resin. The lithog. plate is developed with an alkaline composition that includes an alkali metal silicate, a thickener, and a fluorosurfactant or phosphate ester hydrotrope.

ST pos IR lithog plate phenolic resin

IT Polyethers, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(di-Me siloxane-; pos. IR-sensitive photoimaging compns. for lithog. plate preparation containing)

IT Polysiloxanes, uses

Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(di-Me, polyether-; pos. IR-sensitive photoimaging compns. for lithog. plate preparation containing)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(pos. IR-sensitive photoimaging compns. for lithog. plate preparation containing)

IT Lithographic plates

(pos. photoimaging compns. containing phenolic resins, IR-absorbing compds., and nonphotosensitive dissociation inhibitors for preparation of)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(pos. photoimaging compns. for lithog. plate preparation containing IR-absorbing compds., nonphotosensitive dissociation inhibitors and)

IT Photoimaging materials

STN search for 10765,797

(pos.; containing phenolic resins, IR-absorbing compds., and nonphotosensitive dissociation inhibitors for preparation of lithog. plates)

IT 56-81-5, 1,2,3-Propanetriol, uses 1310-58-3, Potassium hydroxide, uses 1312-76-1, Kasil 2130 37281-48-4, Triton H-66 57534-41-5, Zonyl FSN
RL: TEM (Technical or engineered material use); USES (Uses)
(developing solns. for pos. IR-sensitive photoimaging compns. for lithog. plate preparation containing)

IT 604-59-1, α -Naphthoflavone 143182-20-1, 4,6-Dimethyl-N,N'-diphenyl-1,3-benzenesulfonamide 202009-44-7, CG-21-1005
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. IR-sensitive photoimaging compns. for lithog. plate preparation containing)

IT 9016-83-5, Cresol-formaldehyde copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. photoimaging compns. for lithog. plate preparation containing IR-absorbing compds., nonphotosensitive dissociation inhibitors and)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Allied Corp; EP 0129106 A 1984 CAPLUS
(2) Allied Corp; EP 0178495 A 1986 CAPLUS
(3) Buhr, G; US 5292626 A 1994 CAPLUS
(4) Eastman Kodak Co; EP 0836120 A 1998 CAPLUS
(5) Fuji Photo Film Co Ltd; EP 0323836 A 1989 CAPLUS
(6) Fuji Photo Film Co Ltd; EP 0347245 A 1989 CAPLUS
(7) Fuji Photo Film Co Ltd; GB 2276729 A 1994 CAPLUS
(8) Hoechst AG; DE 4445820 A 1996 CAPLUS
(9) Matsushita Electric Ind Co Ltd; JP 02010355 A 1990 CAPLUS
(10) Mitsubishi Chem Ind Ltd; JP 62024241 A 1987 CAPLUS
(11) Shipley Co; EP 0097282 A 1984

L11 ANSWER 54 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:555608 CAPLUS

DN 129:195827

ED Entered STN: 01 Sep 1998

TI Manufacture of polymer composite parts, the composite parts, blankets using the parts, intaglio and lithographic printing plates, and manufacture of the printing plates

IN Iwasaki, Takeshi; Serisawa, Shogo; Nakamura, Hiromi

PA Toshiba Machine Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B007-02

ICS B32B027-30; B32B031-26; B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 55, 56, 57, 73

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 10226005 | A2 | 19980825 | JP 1997-33693 | 19970218 |
| PRAI | JP 1997-33693 | | 19970218 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|------------|-------|------------------------------------|
| JP | 10226005 | ICM | B32B007-02 |
| | | ICS | B32B027-30; B32B031-26; B41C001-10 |

STN search for 10765,797

AB The composite parts consist of polymer sheets of uniform thickness and sheet or plate as substrates having higher hardness and rigidity than the polymer sheets, which are heated to be softened and melted so that the sheets and the substrates are integrated and the surface of the sheets are smoothened. Further claimed are (A) the composite parts having the polymer surface layers with surface smoothness $\leq 1 \mu\text{mR}_{\text{max}}$ and the hard and rigid substrates, (B) blankets for offset printing having the parts, (C) intaglio printing plates and lithog. plates having the parts using ceramics, glass, metals, or hard plastic substrates, and (D) manufacture of the printing plates including (a) laser ablation for forming ink-supporting drains on the polymer surface of the parts or (b) laser irradiation or applying of chems. on the polymer surface of the parts to form ink-supporting portions. The composite parts provide the printing plates with tack-free and highly smooth surface.

ST polymer sheet composite part; offset printing blanket polymer sheet composite; hard rigid substrate polymer sheet blanket; ceramic substrate polymer sheet blanket; glass substrate polymer sheet blanket; plastic substrate polymer sheet blanket; metal substrate polymer sheet blanket; intaglio printing plate polymer composite blanket; lithog plate polymer sheet composite blanket; laser irradn polymer sheet composite blanket; chem modification polymer sheet composite blanket

IT Glass substrates
(composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT **Fluoropolymers, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT Laser ablation
Laser radiation
(for manufacture of offset printing plates using composite parts comprising polymer surface and hard and rigid substrate)

IT **Printing plates**
(intaglio; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT **Lithographic plates**
(offset; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT **Polymers, uses**
RL: TEM (Technical or engineered material use); USES (Uses)
(silicon-containing; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT **Ceramics**
(substrates; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

IT **Metals, uses**
Plastics, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrates; composite parts comprising polymer surface and hard and rigid substrate for offset printing blankets)

L11 ANSWER 55 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:392240 CAPLUS
DN 129:55453
ED Entered STN: 26 Jun 1998
TI Method of forming patterns in organic coatings films and layers
IN Levenson, Eric O.; Waleh, Ahmad
PA Anon, Inc., USA
SO U.S., 9 pp.

STN search for 10765,797

CODEN: USXXAM
DT Patent
LA English
IC ICM C08J007-04
NCL 427510000
CC 42-2 (Coatings, Inks, and Related Products)
Section cross-reference(s): 77
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 5763016 | A | 19980609 | US 1996-771392 | 19961219 |
| PRAI | US 1996-771392 | | 19961219 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|------------|-----|------------|
| US 5763016 | ICM | C08J007-04 |
| | NCL | 427510000 |

US 5763016 ECLA G03F007/00; G03F007/26D; G03F007/38

AB The method, for preparation of a pattern in organic coatings, films, and layers including (non) photosensitive material which is, e.g., useful in manufacturing of semiconductor wafers and devices, is carried out by treating a substrate to a precursor chemical or precursor phys. treatment, placing the substrate in a chamber, purging the chamber with a dry gas (e.g., N), introducing a vapor consisting essentially of water-free, gaseous SO₃ into the chamber, allowing an appropriate time to reaction the SO₃ and the coating, exposing substrate to an end-point chemical or phys. treatment and treating the substrate to a subsequent chemical or phys. treatment.

ST coating process pattern semiconductor device; chem phys precursor treatment; sulfur trioxide treatment pattern forming process

IT Semiconductor materials

(Group IIIA element pnictide; method of forming patterns in organic coatings films and layers)

IT Alcohols, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)
(aliphatic, treatment; method of forming patterns in organic coatings films and layers)

IT Metals, uses

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(complex, mask coatings; method of forming patterns in organic coatings films and layers)

IT Ethers, uses

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(cyclic, perfluorinated, organic dielec. consist; method of forming patterns in organic coatings films and layers)

IT Polyoxyarylenes

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(ethers, organic dielec. consist; method of forming patterns in organic coatings films and layers)

IT Paints

Photoresists

(mask coating; method of forming patterns in organic coatings films and layers)

IT Polymers, uses

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(mask coating; method of forming patterns in organic coatings films and layers)

STN search for 10765,797

IT Photoimaging materials
(mask coatings; method of forming patterns in organic coatings films and layers)

IT Coating process
Heat treatment
Liquid crystal displays
Magnetic recording heads
Optical imaging devices
Photomasks (lithographic masks)
Printed circuit boards
Semiconductor devices
(method of forming patterns in organic coatings films and layers)

IT Alloys, uses
Group IVA elements
Group IVB elements
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(method of forming patterns in organic coatings films and layers)

IT Fluoropolymers, uses
Polyamides, uses
Polyimides, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(organic dielec. consist; method of forming patterns in organic coatings films and layers)

IT Polyimides, uses
Polyimides, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(polyamide-, organic dielec. consist; method of forming patterns in organic coatings films and layers)

IT Polyamides, uses
Polyamides, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(polyimide-, organic dielec. consist; method of forming patterns in organic coatings films and layers)

IT Polyquinoxalines
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(polyphenylquinoxalines, organic dielec. consist; method of forming patterns in organic coatings films and layers)

IT Steam
(process gases; method of forming patterns in organic coatings films and layers)

IT Acoustic devices
Electromagnetic wave
Gases
IR radiation
Lasers
Solvents
UV radiation
(treatment; method of forming patterns in organic coatings films and layers)

IT 1303-00-0, Gallium arsenide, uses 7440-21-3, Silicon, uses 25722-33-2, Parylene
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(method of forming patterns in organic coatings films and layers)

IT 7446-11-9P, Sulfur trioxide, preparation

STN search for 10765,797

RL: IMF (Industrial manufacture); PREP (Preparation)
(method of forming patterns in organic coatings films and layers)
IT 7440-44-0D, Carbon, fluorinated, uses 9002-84-0, PTFE 25038-76-0,
Polynorbornene 25135-16-4, Polynaphthalene 53761-77-6D,
Perfluorocyclobutene homopolymer, arom ether
RL: DEV (Device component use); PEP (Physical, engineering or chemical
process); PROC (Process); USES (Uses)
(organic dielec. consist; method of forming patterns in organic coatings
films and layers)
IT 7440-37-1P, Argon, preparation 7727-37-9P, Nitrogen, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(process gases; method of forming patterns in organic coatings films and
layers).
IT 7722-84-1, Hydrogen peroxide, uses 7782-44-7, Oxygen, uses 10024-97-2,
Nitrous oxide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(process gases; method of forming patterns in organic coatings films and
layers)
IT 67-64-1P, 2-Propanone, preparation 7732-18-5P, Water, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(treatment; method of forming patterns in organic coatings films and
layers)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; Semiconductor International 1990, P83
- (2) Anon; Semiconductor International 1994, P61
- (3) Anon; Semiconductor International 1996, P44
- (4) Grebinski; US 4778536 1988
- (5) Gupta; US 5037506 1991 CAPLUS
- (6) Kozacka; US 4179071 1979
- (7) Nimerick; US 4669544 1987 CAPLUS
- (8) Stanley, W; Process Technology 1986, V1, P564
- (9) Tanaka; US 5158100 1992
- (10) Walles; US 4915912 1990 CAPLUS
- (11) Walles; US 5030399 1991 CAPLUS

L11 ANSWER 56 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:226979 CAPLUS

DN 128:328790

ED Entered STN: 22 Apr 1998

TI Lithographic printing plate with microparticle

IN Katano, Yasuo; Morikawa, Minoru

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-26

ICS B05D005-04; B05D007-04; B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI JP 10095167 | A2 | 19980414 | JP 1996-271551 | 19960920 |
| PRAI JP 1996-271551 | | 19960920 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| ----- | ----- | ----- |
| JP 10095167 | ICM | B41M005-26 |

STN search for 10765,797

ICS B05D005-04; B05D007-04; B41M005-00

AB In the title plate for forming images using contact angle changes of a recording layer upon heat application, the recording layer contains microparticles with a volume average particle size of $\leq 4 \mu\text{m}$.
ST lithog printing plate microparticle contact angle
IT Silsesquioxanes
RL: DEV (Device component use); USES (Uses)
(Me; lithog. printing plate with microparticle)
IT Lithographic plates
(lithog. printing plate with microparticle)
IT Fluoropolymers, uses
Polyurethanes, uses
RL: DEV (Device component use); USES (Uses)
(lithog. printing plate with microparticle)
IT 9011-14-7, Polymethyl methacrylate
RL: DEV (Device component use); USES (Uses)
(lithog. printing plate with microparticle)

L11 ANSWER 57 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:610023 CAPLUS

DN 127:313155

ED Entered STN: 24 Sep 1997

TI Image-forming material having two-phase layer with hydrophobic photopolymerizable dispersion

IN Van Damme, Marc; Vermeersch, Joan; Podszun, Wolfgang; Lui, Norbert

PA Agfa Gevaert N. V., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-11

ICS G03F007-00; G03F007-027; G03F007-26

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 09236926 | A2 | 19970909 | JP 1997-52536 | 19970221 |
| | JP 2894552 | B2 | 19990524 | | |
| | EP 791857 | A1 | 19970827 | EP 1997-200352 | 19970210 |
| | EP 791857 | B1 | 20001115 | | |
| | R: DE, FR, GB | | | | |
| | US 5922507 | A | 19990713 | US 1997-805940 | 19970225 |
| PRAI | EP 1996-200482 | A | 19960226 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|-------------|-------|-------------------------------------|
| | JP 09236926 | ICM | G03F007-11 |
| | | ICS | G03F007-00; G03F007-027; G03F007-26 |
| | EP 791857 | ECLA | G03F007/004F; G03F007/027 |
| | US 5922507 | ECLA | G03F007/004F; G03F007/027 |

AB The material contains, on a support, a 2-phase layer which comprises a dispersed hydrophobic photopolymerizable phase possessing polyfunctional monomers having perfluoroalkyl or perfluoroalkenyl groups and a hydrophilic continuous phase. The material is imagewise exposed and heat-treated to give a lithog. printing plate. The material is developed by only heat treatment and a high quality lithog. printing plate is obtained therefrom.

STN search for 10765,797

ST presensitized lithog plate **perfluoroalkyl**
polyfunctional monomer; hydrophobic photopolymerizable dispersion
lithog plate; hydrophilic phase presensitized lithog
plate

IT **Fluoropolymers, preparation**
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)
(presensitized lithog. plate material having hydrophobic
photopolymerizable dispersion phase and hydrophilic phase)

IT **Lithographic plates**
(presensitized; presensitized lithog. plate material having
hydrophobic photopolymerizable dispersion phase and hydrophilic phase)

IT 9003-20-7D, hydrolyzed 110736-47-5, Mowiol 66-100
RL: DEV (Device component use); USES (Uses)
(presensitized lithog. plate material having hydrophobic
photopolymerizable dispersion phase and hydrophilic phase)

IT 184474-72-4P 184474-75-7P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)
(presensitized lithog. plate material having hydrophobic
photopolymerizable dispersion phase and hydrophilic phase)

IT 184474-68-8P 184474-69-9P
RL: PNU (Preparation, unclassified); PREP (Preparation)
(presensitized lithog. plate material having hydrophobic
photopolymerizable dispersion phase and hydrophilic phase)

IT 559-40-0, **Perfluorocyclopentene** 1584-03-8, **Perfluoro**
-2-methyl-2-pentene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with glycerin methacrylate)

IT 28497-59-8, **Glycerin dimethacrylate**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with **perfluoroalkenyl** compound)

L11 ANSWER 58 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:265410 CAPLUS
DN 126:257069
ED Entered STN: 25 Apr 1997
TI Recording material containing **fluoropolymers** and urethane binder
resins
IN Katano, Yasuo; Tanaka, Shinji; Kawakubo, Toshio; Morikawa, Minoru; Komai,
Hiromichi; Ito, Katsuji; Myazaki, Nobuyuki
PA Ricoh Kk, Japan; Asahi Glass Co Ltd
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41M005-00
ICS B41M005-26
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 09052437 | A2 | 19970225 | JP 1995-228590 | 19950814 |
| | JP 3451279 | B2 | 20030929 | | |
| PRAI | JP 1995-228590 | | 19950814 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
| ----- | ----- | ----- |

JP 09052437 ICM B41M005-00
ICS B41M005-26

AB A recording layer of the recording material contains ≥2 types of polymers, in which ≥1 type of the polymers contains F in the sidechain and is able to change the recess contact angle, and the other type of the polymer is a binder polymer such as a polyurethane resin to form a hard film. The recording material decreases the recess contact angle when it contacts a liquid under a heated condition. The recording material provided printing durability when it was used as a lithog. printing plate.

ST recording material fluoropolymer urethane binder resin; lithog printing plate recording later; recess contact angle lithog printing plate

IT Lithographic plates
(offset; recording material containing fluoropolymer and urethane binder resin)

IT Polyesters, uses
Polyurethanes, uses
RL: DEV (Device component use); USES (Uses)
(recording material containing fluoropolymer and urethane binder resin)

IT 75-01-4D, Vinyl chloride, polymer with perfluoroalkyl acrylate
79-10-7D, Acrylic acid, fluoroalkyl ester, polymer 4813-57-4D,
Stearyl acrylate, polymer with perfluoroalkyl acrylate
9003-08-1, Melamine-formaldehyde copolymer 26044-94-0, Isobutyl methacrylate/methyl methacrylate copolymer 188618-63-5
RL: DEV (Device component use); USES (Uses)
(recording material containing fluoropolymer and urethane binder resin)

L11 ANSWER 59 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:529267 CAPLUS
DN 125:154467
ED Entered STN: 03 Sep 1996
TI Manufacture of offset printing blanket and fluoropolymer
- or silicone-coated vulcanized paper for it
IN Hariguchi, Hideki; Iida, Goro; Iwasaki, Yoshio
PA Mitsubishi Paper Mills Ltd, Japan; Meiji Gomu Kasei Kk
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N010-00
ICS D21H027-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 43

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 08175047 | A2 | 19960709 | JP 1994-337161 | 19941226 |
| | JP 2977014 | B2 | 19991110 | | |
| PRAI | JP 1994-337161 | | 19941226 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 08175047 | ICM | B41N010-00 |
| | ICS | D21H027-00 |

AB The blanket is manufactured by forming a surface rubber layer as a printing face on ≥1-layered support, directly laminating a

STN search for 10765,797

sulfidized paper on the rubber layer, followed by rolling it, heating to vulcanize the rubber layer, removing the vulcanized paper, and polishing the surface of the rubber layer. The vulcanized paper shows its surface pH ≥ 6.0 and/or is coated with a ≥ 0.2 g/m² **fluoropolymer** or silicone layer. The blanket was manufactured without using talc.

ST printing blanket offset vulcanized paper; silicone coating vulcanized paper printing blanket; **fluoropolymer** coating vulcanized paper printing blanket; talc free printing blanket offset manuf

IT Siloxanes and Silicones, uses
RL: DEV (Device component use); USES (Uses)
(manufacture of offset printing blanket by using
fluoropolymer- or silicone-coated vulcanized paper)

IT Paper
(vulcanized; manufacture of offset printing blanket by using
fluoropolymer- or silicone-coated vulcanized paper)

IT Rubber, synthetic, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(vulcanized; manufacture of offset printing blanket by using
fluoropolymer- or silicone-coated vulcanized paper)

IT Lithographic plates
(offset, blankets; manufacture of offset printing blanket by using
fluoropolymer- or silicone-coated vulcanized paper)

IT 70407-12-4, Asahiguard AG 530
RL: DEV (Device component use); USES (Uses)
(manufacture of offset printing blanket by using
fluoropolymer- or silicone-coated vulcanized paper)

L11 ANSWER 60 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:746114 CAPLUS
DN 123:156334
ED Entered STN: 19 Aug 1995
TI Method for preparation of printing plate by electrophotographic process and apparatus for use therein.
IN Kato, Eiichi; Nakazawa, Yusuke; Osawa, Sadao
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 125 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03G013-28
ICS G03G005-147
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

| FAN.CNT 1 | | | | |
|-----------|----------------|------|----------|-----------------|
| | PATENT NO. | KIND | DATE | APPLICATION NO. |
| PI | EP 632338 | A2 | 19950104 | EP 1994-109303 |
| | EP 632338 | A3 | 19960313 | |
| | EP 632338 | B1 | 19991027 | |
| | R: DE, GB | | | |
| | JP 07005727 | A2 | 19950110 | JP 1993-169846 |
| | JP 3315207 | B2 | 20020819 | |
| | JP 07064356 | A2 | 19950310 | JP 1993-232181 |
| | US 5620822 | A | 19970415 | US 1994-262029 |
| PRAI | JP 1993-169846 | A | 19930617 | |
| | JP 1993-232181 | A | 19930826 | 19940617 |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | | | |
|------------|---|------------------------------------|-------------------------------|--------------|---------------|
| EP 632338 | ICM | G03G013-28 | | | |
| | ICS | G03G005-147 | | | |
| EP 632338 | ECLA | G03G013/28 | | | |
| AB | <p>A method for preparation of a printing plate by an electrophotog. process comprising forming a peelable transfer layer mainly containing a resin capable of being removed upon a chemical reaction treatment on the surface of an electrophotog. light-sensitive element, forming a toner image on the transfer layer by an electrophotog. process, heat-transferring the toner image together with the transfer layer onto a receiving material a surface of which is capable of providing a hydrophilic surface suitable for lithog. printing at the time of printing, and removing the transfer layer on the receiving material upon the chemical reaction treatment, wherein prior to or simultaneously with the formation of transfer layer a compound which contains a F atom and/or Si atom is applied to the surface of electrophotog. light-sensitive element to improve releasability of the surface of electrophotog. light-sensitive element. The method continuously provides printing plates excellent in image qualities in a stable manner and is suitable for a scanning exposure system using a laser beam. An apparatus suitable for performing the present method is also described.</p> | | | | |
| ST | printing plate electrophotog release layer; surfactant silicon fluoro compd | | | | |
| IT | <p>Electrophotographic photoconductors and photoreceptors Printing plates (preparation of printing plate by electrophotog. process)</p> | | | | |
| IT | <p>Fluoropolymers Siloxanes and Silicones, uses RL: DEV (Device component use); USES (Uses) (preparation of printing plate by electrophotog. process)</p> | | | | |
| IT | <p>Siloxanes and Silicones, uses RL: DEV (Device component use); USES (Uses) (di-Me, carboxy-terminated, preparation of printing plate by electrophotog. process)</p> | | | | |
| IT | <p>9016-00-6D, Poly[oxy(dimethylsilylene)], di-Me RL: DEV (Device component use); USES (Uses) (3-hydroxypropyl Me, ethylene oxide-graft; preparation of printing plate by electrophotog. process)</p> | | | | |
| IT | 25766-25-0 | 26936-24-3 | 27155-22-2 | 58258-12-1 | 65697-21-4 |
| | 65697-22-5 | 82030-84-0 | Surflon S 141 | 91105-71-4 | Surflon S 382 |
| | 99031-41-1 | 144070-79-1 | 163655-70-7 | 163916-22-1 | 163916-23-2 |
| | 163916-24-3 | 163916-26-5D | Fluoride and methylterminated | 163916-27-6 | |
| | 166594-70-3 | 166594-72-5 | 166594-74-7 | 166594-75-8 | 166594-76-9 |
| | 166594-77-0 | 166594-78-1 | 166594-80-5 | 166594-81-6 | 166594-82-7 |
| | 166594-83-8 | 166594-84-9 | 166594-85-0 | 166594-86-1 | 166594-88-3 |
| | 166594-90-7 | 166594-92-9 | 173611-09-1 | | |
| | RL: DEV (Device component use); USES (Uses) (preparation of printing plate by electrophotog. process) | | | | |
| IT | 158312-76-6P | 166594-20-3P | 166594-21-4P | 166594-23-6P | 166594-24-7P |
| | 166594-25-8P | 166594-27-0P | 166594-29-2P | 166594-31-6P | 166594-32-7P |
| | 166594-34-9P | 166594-36-1P | 166594-37-2P | 166594-38-3P | 166594-39-4P |
| | 166594-41-8P | 166594-43-0P | 166594-44-1P | 166594-47-4P | 166594-48-5P |
| | 166594-49-6P | 166594-50-9P | 166594-51-0P | 166594-52-1P | 166594-54-3P |
| | 166594-55-4P | 166594-56-5P | 166594-58-7P | 166594-60-1P | 166594-61-2P |
| | 166594-62-3P | 166594-63-4P | 166594-66-7P | 166594-67-8P | 166594-68-9P |
| | 166594-69-0P | 166656-23-1P | 176762-58-6P | | |
| | RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (release layer; preparation of printing plate by electrophotog. | | | | |

STN search for 10765,797

process)

L11 ANSWER 61 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:446656 CAPLUS
DN 121:46656
ED Entered STN: 23 Jul 1994
TI Lithographic plate material for thermographic platemaking
IN Nakajima, Tsutomu; Momyama, Ritsuko
PA Ricoh Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41M005-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 05246133 | A2 | 19930924 | JP 1992-84564 | 19920306 |
| | JP 3219299 | B2 | 20011015 | | |
| PRAI | JP 1992-84564 | | 19920306 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|-------------|-------|------------------------------------|
| | JP 05246133 | ICM | B41M005-00 |

AB In a recording material whose recording layer material shows a decrease in recessing contact angle upon heating in the presence of a liquid, the recording layer is provided with projections and is based on a compound having F-containing side chains, the material is a blend of polymers ≥ 1 of which contains F-containing side chains, or the recording layer consists of fine particles of the above recording material deposited on an elastic sheet. The F-containing compound is a homo- or copolymer of CH₂:CR₁CO₂R₂ [R₁ = H, Me; R₂ = F-containing group], CH₂:CR₁OCOR₂ [R₁ = same as above; R₂ = F-containing group], CH₂:CR₁C(O)R₂ [R₁ = same as above; R₂ = F-containing group], CH₂:CR₁OR₂ [R₁ = same as above; R₂ = F-containing group], or CH₂:CR₁CONHR₂ [R₁ = same as above; R₂ = F-containing group]. The material provides high d. prints.

ST lithog plate material thermog

IT Lithographic plates
(materials, thermog., containing fluorine-containing polymer)

IT Fluoropolymers

RL: PREP (Preparation)
(preparation of, thermog. lithog. plate material from)
IT 25639-21-8P, Stearyl methacrylate homopolymer 26338-99-8P 30660-58-3P
31074-80-3P 74049-08-4P 88233-95-8P 88992-72-7P 90718-04-0P
93705-98-7P 104242-01-5P 105134-96-1P 110453-15-1P 118036-79-6P
153973-31-0P 156169-38-9P 156169-39-0P 156169-40-3P
RL: PREP (Preparation)
(preparation of, thermog. lithog. plate material from)

L11 ANSWER 62 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:52933 CAPLUS
DN 114:52933
ED Entered STN: 09 Feb 1991
TI Waterless lithographic plate material with fluororesin layer
IN Suzuki, Norihito; Nakajima, Akihisa; Tomiyasu, Hiroshi; Kasakura, Akio
PA Konica Co., Japan; Mitsubishi Kasei Corp.

STN search for 10765,797

SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00
ICS G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 02134636 | A2 | 19900523 | JP 1988-288129 | 19881115 |
| PRAI | JP 1988-288129 | | 19881115 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|-------------|-------|------------------------------------|
| | JP 02134636 | ICM | G03F007-00 |
| | | ICS | G03F007-09 |

AB The title materials comprise a photosensitive layer and a layer containing a fluororesin having functional groups capable of combining to those of the compds. in the photosensitive layer by exposure to light. The materials can be developed by developing solns. without F, and provide printing plates with good durability. Thus, an Al plate was coated with a photosensitive layer and with a fluororesin layer containing 1H,1H,2H,2H-heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer crosslinked by 2-methacryloyloxyethyl isocyanate, and Coronate EH (polyisocyanate), and heat-treated to give a waterless lithog. plate.

ST waterless lithog plate fluororesin

IT Urethane polymers, uses and miscellaneous

RL: USES (Uses)

(lithog. plate using)

IT Lithographic plates

(waterless, with fluororesin layer, for good durability)

IT 868-77-9D, 2-Hydroxyethyl methacrylate, heptadecafluorodecyl methacrylate-maleic anhydride-Me methacrylate copolymer treated with 2094-99-7D, m-Isopropenyl- α,α -dimethylbenzyl isocyanate, heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer treated with 99038-07-0D, m-isopropenyl- α,α -dimethylbenzyl isocyanate-treated 131026-34-1D, glycidyl methacrylate-treated

RL: USES (Uses)

(lithog. plate fluororesin layer using)

IT 106-91-2D, Glycidyl methacrylate, acrylic fluoropolymer treated with 113318-55-1D, Heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer, glycidyl methacrylate-treated 128319-75-5D, 2-hydroxyethyl methacrylate-treated 131005-31-7, Allyl methacrylate-heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer

RL: USES (Uses)

(lithog. plate using)

IT 131431-65-7

RL: USES (Uses)

(lithog. plate using crosslinked)

L11. ANSWER 63 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1990:641546 CAPLUS

DN 113:241546

ED Entered STN: 22 Dec 1990

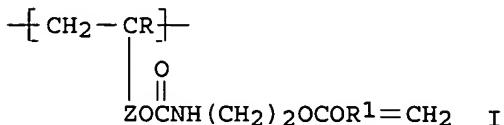
TI Waterless lithographic plate materials with photosensitive layer

and fluororesin layer
 IN Nakajima, Akihisa; Suzuki, Norihito; Tomiyasu, Hiroshi; Kasakura, Akio
 PA Konica Co., Japan; Mitsubishi Kasei Corp.
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-038
 ICS G03F007-00; G03F007-027
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|-------|------------------------------------|-----------------|----------|
| PI JP 02115850 | A2 | 19900427 | JP 1988-270119 | 19881026 |
| PRAI JP 1988-270119 | | 19881026 | | |
| CLASS | | | | |
| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | | |
| JP 02115850 | ICM | G03F007-038 | | |
| | ICS | G03F007-00; G03F007-027 | | |

GI



AB The title materials comprise a support with coatings of a photosensitive layer containing a polymer I [R, R₁ = H, Me; Z = (substituted) phenylene, a carboxyl having a phenylene, a C₁-10 (halogenated) hydrocarbon, or a polyether group as its ester group, amido] and a photopolymn. initiator and a fluororesin layer. The photosensitive layer shows good adhesion to the resin layer, and the materials have good photosensitivity. Thus, an Al plate with a primer layer was coated with a composition containing

a Me methacrylate-2-hydroxyethyl methacrylate-2-isocyanatoethyl methacrylate copolymer and benzophenone and subsequently with a Coronate EH-1H, 1H, 2H, 2H-heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer and heat-treated to give a photosensitive plate. A waterless lithog. plate obtained from the plate gave 20,000 high quality prints.

ST waterless lithog plate photosensitive layer; fluororesin layer lithog plate

IT Fluoropolymers

IT RL: USES (Uses)
 (waterless lithog. plate with photosensitive layer containing)

IT Lithographic plates

IT (waterless, with photosensitive layer and fluororesin layer)

IT 119-61-9, Benzophenone, uses and miscellaneous

IT RL: USES (Uses)

IT (photopolymn. initiator, waterless lithog. plate with photosensitive layer containing)

IT 93974-90-4P

IT RL: PREP (Preparation)

IT (preparation of, for waterless lithog. plate photosensitive layer)

STN search for 10765,797

IT 130458-59-2 130458-60-5
RL: USES (Uses)
(waterless lithog. plate with layer containing)
IT 130551-17-6
RL: USES (Uses)
(waterless lithog. plate with photosensitive layer containing)

L11 ANSWER 64 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:621408 CAPLUS
DN 113:221408
ED Entered STN: 08 Dec 1990
TI Waterless lithographic plate materials with photosensitive layer
and fluororesin layer
IN Nakajima, Akihisa; Suzuki, Norihito; Tomiyasu, Hiroshi; Kasakura, Akio
PA Konica Co., Japan; Mitsubishi Kasei Corp.
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-016
ICS G03F007-00; G03F007-027
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 02115846 | A2 | 19900427 | JP 1988-270121 | 19881026 |
| PRAI JP 1988-270121 | | 19881026 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 02115846 | ICM | G03F007-016 |
| | ICS | G03F007-00; G03F007-027 |

AB The title materials comprise a support with coatings of a photosensitive layer containing an ethylenic unsatn. addition polymer, a photopolymn. initiator, and a diazo resin, and a fluororesin layer. The photosensitive layer shows good adhesion to the resin layer, and the materials have good photosensitivity. Thus, an Al plate with a primer layer was coated with a composition containing allylated methacrylic acid-benzyl methacrylate copolymer,

benzophenone, and p-diazophenylamine hexafluorophosphate-HCHO condensate and subsequently with a composition containing Coronate EH-1H,1H,2H,2H-heptadecafluorodecyl methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer and heat-treated to give a photosensitive plate. The waterless lithog. plate obtained from the plate gave 30,000 high-quality prints.

ST waterless lithog plate ethylenic polymer; fluororesin layer lithog plate; diazo resin lithog plate

IT Fluoropolymers
RL: USES (Uses)

(waterless lithog. plate with layer containing)

IT Lithographic plates
(waterless, with photosensitive layer and fluororesin layer)

IT 119-61-9, Benzophenone, uses and miscellaneous
RL: USES (Uses)
(photopolymn. initiator, waterless lithog. plate with
photosensitive layer containing)

IT 130500-99-1P
RL: PREP (Preparation)

STN search for 10765,797

(preparation of, for waterless lithog. plate photosensitive layer)
IT 130458-59-2 130458-60-5
RL: USES (Uses)
(waterless lithog. plate with layer containing)
IT 68541-74-2 130551-17-6
RL: USES (Uses)
(waterless lithog. plate with photosensitive layer using)

L11 ANSWER 65 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:468430 CAPLUS
DN 113:68430
ED Entered STN: 17 Aug 1990
TI Lithographic original plates with a heat-sensitive
layer containing silicone- or fluoro-type graft copolymers
IN Sato, Masahiro; Yamane, Shiro
PA Ricoh Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N001-14
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 01290498 | A2 | 19891122 | JP 1988-122956 | 19880518 |
| PRAI JP 1988-122956 | | 19880518 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 01290498 | ICM | B41N001-14 |

AB Lithog. original plates, prepared by forming a heat
-sensitive layer containing an inorg. pigment, a binder, and a heat
-meltable substance on a water-resistant support, contain silicone- or
fluoro-type graft copolymers in the layer. The plates provide
high d. images without unevenness by using thermal heads and high quality
prints without greasing and show good antisticking properties.
Thus, a paper support was coated with an undercoat layer on the front
side, coated with a back-coat layer on the back side, and then coated with
a composition containing Sazex 2000 (ZnO), GS-30 (silicone-type graft
copolymer),
and LR-1551 (acrylic resin) on the front side to give a heat
-sensitive plate. The plate gave high quality images by using a thermal
head.

ST lithog plate heat sensitive layer; silicone graft
copolymer lithog plate; fluorine graft copolymer lithog
plate

IT Fluoropolymers

RL: USES (Uses)
(graft polymers, lithog. plates heat sensitive
layers containing)

IT Lithographic plates
(with heat sensitive layers containing silicone graft polymers or
fluoro graft polymers, antisticking)

IT Siloxanes and Silicones, uses and miscellaneous
RL: USES (Uses)

(acrylic, lithog. plates heat sensitive layers
containing, Aron GS 30)

IT Siloxanes and Silicones, compounds

STN search for 10765,797

RL: USES (Uses)
(graft polymers, lithog. plates heat sensitive
layers containing)
IT Acrylic polymers, uses and miscellaneous
RL: USES (Uses)
(siloxane-, lithog. plates heat sensitive layers
containing, Aron GS 30)
IT 75216-52-3, Dianal LR 018 121273-57-2, LR-1551
RL: USES (Uses)
(binder, for heat sensitive lithog. plates)
IT 112-85-6, Docosanoic acid 822-16-2, Sodium stearate
RL: USES (Uses)
(heat meltable substance, for heat sensitive
lithog. plates)
IT 105287-32-9, Aron GF 300
RL: USES (Uses)
(lithog. plates heat sensitive layers containing)
IT 1314-13-2, Zinc oxide (ZnO), uses and miscellaneous
RL: USES (Uses)
(pigment, for heat sensitive lithog. plates)

L11 ANSWER 66 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:505851 CAPLUS
DN 111:105851
ED Entered STN: 16 Sep 1989
TI Preparation of lithographic plates from presensitized plates
involving treatment with fluoro-type surfactant solution and
burning treatment
IN Uchida, Toshiaki; Izumi, Yoichi; Sawada, Shozo
PA Kryo Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N003-00
ICS B41C001-10
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 01049687 | A2 | 19890227 | JP 1987-207028 | 19870819 |
| PRAI JP 1987-207028 | | 19870819 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 01049687 | ICM | B41N003-00 |
| | ICS | B41C001-10 |

AB A presensitized lithog. plate is pretreated with a solution containing
a F-containing surfactant prior to burning treatment to give a lithog
. plate. The lithog. plate provides high-quality prints
without greasing and shows good printing durability. Thus, a
pos.-working presensitized plate was imagewise exposed, developed, washed,
coated with a 3% solution of EFTOP EF-103 (Na perfluoroalkylsulfonate
, dried, and then heat-treated at 260° for 6 min by
using a burning oven to give a lithog. plate which gave high
quality prints and showed excellent printing
durability.

ST presensitized lithog plate burning treatment; fluoro
surfactant treatment lithog plate

STN search for 10765,797

IT Lithographic plates
(presensitized, processing of, with fluoro-type surfactant
solution and burning treatment, for good printing durability)
IT 1652-63-7, Fluorad FC-135 4021-47-0, Eftop EF 103 29117-08-6, Fluorad
FC-170C 94765-69-2, EFTOP EF-126 110737-23-0, Surflon S-132
122303-48-4, Eftop EF 105
RL: USES (Uses)
(surfactant, presensitized lithog. plate treated with, for
good printing durability)

L11 ANSWER 67 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:501924 CAPLUS
DN 109:101924
ED Entered STN: 17 Sep 1988
TI Electrophotographically prepared lithographic plates with choice
of positive and negative images
IN Taguchi, Takao; Ueyama, Kosuke
PA Japan
SO Jpn. Kokai Tokkyo Koho, 7
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03G013-28
ICS B41C001-10; B41N001-14
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 63023168 | A2 | 19880130 | JP 1986-167049 | 19860716 |
| PRAI JP 1986-167049 | | 19860716 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 63023168 | ICM | G03G013-28 |
| | ICS | B41C001-10; B41N001-14 |

AB The title plates having a photoconductive layer containing phthalocyanine pigment, ZnO, and binder are imagewise exposed after corona charging and developed with a developer containing fluoropolymer particles, and either treated with a desensitizer solution for obtaining pos. images or heat-treated for obtaining neg. images. Beside the free choice of the type of images, the plates are used for platemaking with a semiconductor laser, and allow the use of heat fixing when waterless printing of neg. images is desired. Thus, a paper sheet backcoated with a conductive polymer was coated with an emulsion containing a 1:1 Bu acrylate-Me methacrylate copolymer, ϵ -Cu phthalocyanine, and ZnO. A developer was prepared by polymerizing 9.7 g

dodecyl

methacrylate and 0.3 g glycidyl methacrylate; adding 10 mg hydroquinone and 25 mg lauryldimethylamine, adding 75 mg methacrylic acid, heating further, adding 10 g Viscoat 17F and azobisisobutyronitrile, heating, and dilution of the obtained latex with Isopar G. The plate was charged pos. on the photosensitive side, imagewise exposed and developed using the developer, to obtain a pos. image. Treatment with etching solution and use in offset printing gave pos. printed copies with a high resolution. Alternately, the pos.-imaged plate was treated at 120° for 2 min, and was used as a waterless plate, which gave >1000 clear neg. printed copies.

The developer was stable on storage.

ST lithog plate electrophotog pos neg

STN search for 10765,797

IT Rubber, cyclized
RL: USES (Uses)
(developer for electrophotog. prepared lithog. plates containing)
IT **Fluoropolymers**
RL: PREP (Preparation)
(developer for electrophotog. prepared lithog. plates containing,
preparation of)
IT **Lithographic plates**
(electrophotog. in manufacture of, with pos. or neg. images,
fluoropolymer-containing developer in relation to)
IT **Electrophotographic developers**
(fluoropolymer-containing, for preparation of lithog.
plates)
IT 24937-79-9 88233-95-8 116107-72-3
RL: USES (Uses)
(developer for electrophotog. prepared lithog. plates containing)

L11 ANSWER 68 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:29487 CAPLUS
DN 108:29487
ED Entered STN: 23 Jan 1988
TI Acrylic fluoropolymer as developer for waterless
lithographic plates
IN Taguchi, Takao; Kumagai, Koji; Ueyama, Kosuke; Hamada, Nobuhiro; Inaba,
Yoshimi
PA Toppan Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03G013-28
ICS B41N001-14
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| PI JP 62180377 | A2 | 19870807 | JP 1986-23093 | 19860205 |
| PRAI JP 1986-23093 | | 19860205 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 62180377 | ICM | G03G013-28 |
| | ICS | B41N001-14 |

AB Waterless lithog. plates are prepared by forming electrostatic
latent images on a plate, which is obtained by forming an organic
photoconductive substance layer on a conductive substrate, and reversal
developing the images to form image parts and nonimage parts. The
nonimage parts comprise a developer whose main constituent is a
(meth)acrylate (co)polymer having F atoms on its mol. The lithog
. plates provide high quality prints without scumming and
exhibit good printing durability. Thus, Metalumy 100
(Al-deposited polyester film) was coated with a composition containing
poly(vinylcarbazole) and trinitrofluorenone, and the photoreceptor was
imagewise exposed, developed with a toner comprising CH₂:CHCO₂CH₂C₁₀F₄-Bu
acrylate copolymer by using an electrophotog. process and then
heat-treated to give a lithog. plate with neg. toner
images. The critical surface tension of the toner image parts was <17.06
dyne/cm and the lithog. plate gave high quality pos.
prints without scumming.

STN search for 10765,797

ST fluorine methacrylate developer lithog plate
IT Rubber, cyclized
RL: USES (Uses)
(electrophotog. plate developer using)
IT Fluoropolymers
RL: USES (Uses)
(acrylic, electrophotog. plate developers using)
IT Acrylic polymers, uses and miscellaneous
RL: USES (Uses)
(fluorine-containing, electrophotog. plate developers using)
IT Electrophotographic developers
(toners, fluorine-containing (meth)acrylic polymers using, for waterless
lithog. plates)
IT Lithographic plates
(waterless, developers, fluorine-containing (meth)acrylate polymers using)
IT 28497-86-1 112077-51-7 112077-52-8, Dodecyl methacrylate-glycidyl
methacrylate-methacrylic acid-Viscoat 17 F copolymer
RL: USES (Uses)
(electrophotog. plate developer using)

L11 ANSWER 69 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:468172 CAPLUS

DN 107:68172

ED Entered STN: 21 Aug 1987

TI Photosensitive printing plates

IN Iwaki, Akio; Suzuki, Akihiko

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-02

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 61273547 | A2 | 19861203 | JP 1985-115799 | 19850529 |
| PRAI JP 1985-115799 | | 19850529 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|-------|------------------------------------|
| JP 61273547 | ICM | G03F007-02 |

AB The matting agent contained in the photosensitive layer of the title
plates is a F-containing organic compound insol. in the solvents used in
coating of
the layer. The layer is prepared without addnl. coating or heating
processes, and provides close contact of the plates with the original, is
antistatic, and does not degrade the print quality. A

degreased, grained, anodized, and sealed Al plate was coated with a composition
containing a m-cresol-HCHO resin naphthoquinone-1,2-diazide-5-sulfonate 3.5,
m-cresol-HCHO resin 8.0, naphthoquinone-1,2-diazide-4-sulfonyl chloride
0.15, a p-octylphenol-HCHO resin naphthoquinone-1,2-diazide-5-sulfonate
0.12, Lublon L-2 (PTFE powder; average particle diameter 10 μ) 0.24, Oil Blue
603 0.2 part, and ethylene glycol monethyl ether. A lithog.
plate obtained by exposure and development (4% Na metasilicate) gave a
large number of prints without blemishes.

ST photolithog plate fluoropolymer matting agent; photosensitive
printing plate antistatic

IT Fluoropolymers

STN search for 10765,797

RL: USES (Uses)
(matting agents, for photosensitive compns. containing diazo resins for lithog. plates)

IT Lithographic plates
(photosensitive compns. containing diazo resins and fluoropolymer matting agent for preparation of)

IT 9002-83-9, Diaflon N-300 9002-84-0, Lublon L-2 25067-11-2, Neoflon NP-20
RL: USES (Uses)
(matting agent, for photosensitive compns. containing diazo resins for lithog. plates)

IT 25086-36-6, m-Cresol-formaldehyde copolymer
RL: USES (Uses)
(photosensitive compns. containing diazo resins and fluoropolymer matting agent and, for fabrication of lithog. plates)

IT 36451-09-9
RL: USES (Uses)
(photosensitive compns. containing fluoropolymer matting agent and diazo resin and, for fabrication of lithog. plates)

IT 110-80-5, Ethylene glycol monoethyl ether 1328-54-7, Oil blue 603
65722-01-2, Victoria pure blue 104887-16-3
RL: USES (Uses)
(photosensitive compns. containing fluoropolymer matting agent and diazo resins and, for fabrication of lithog. plates)

IT 62655-78-1 75757-31-2 84135-66-0
RL: USES (Uses)
(photosensitive compns. containing fluoropolymer matting agent and, for fabrication of lithog. plates)

L11 ANSWER 70 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:186540 CAPLUS

DN 106:186540

ED Entered STN: 29 May 1987

TI Heat-fixing process for toner image on lithographic plate transferred from electrophotographic photoreceptor

IN Yamane, Shiro; Arai, Fumiaki

PA Ricoh Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 2 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03G015-20

ICS G03G013-28; G03G015-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 61258282 | A2 | 19861115 | JP 1985-100879 | 19850513 |
| PRAI | JP 1985-100879 | | 19850513 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|------------|-------|------------------------------------|
| JP | 61258282 | ICM | G03G015-20 |
| | | ICS | G03G013-28; G03G015-20 |

AB The process uses a plasticizer incorporated in a silicone oil coated on a siloxane or fluoropolymer roller to improve the durability of the lithog. plate. A toner image on a lithog. plate was heat-fixed with a siloxane roller coated with the silicone oil KF 96 containing the plasticizer Bu phthalate. The process provided a

STN search for 10765,797

lithog. plate with improved printing durability and the
lithog. plate gave prints with improved clarity.
ST lithog plate toner image fixing
IT Lithographic plates
(electrophotog. preparation of, heat fixing of toner images in,
with siloxane rollers coated with silicone oils containing plasticizer, for
improved durability)
IT 84-74-2, Butyl phthalate 27554-26-3, Isooctyl phthalate
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizer, electrophotog. preparation of lithog. plates with
toner images fixed by siloxane rollers coated with silicone oils
containing, for improved durability)

L11 ANSWER 71 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1986:13120 CAPLUS
DN 104:13120
ED Entered STN: 11 Jan 1986
TI Electroerosion printing
IN Afzali-Ardakani, Ali; Cohen, Mitchell Simmons; Pennington, Keith Samuel;
Sachdev, Krishna Gandhi
PA International Business Machines Corp. , USA
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM B41M005-24
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | EP 147643 | A2 | 19850710 | EP 1984-114278 | 19841127 |
| | EP 147643 | A3 | 19870225 | | |
| | EP 147643 | B1 | 19890125 | | |
| | R: DE, FR, GB | | | | |
| | US 4554562 | A | 19851119 | US 1983-567297 | 19831230 |
| | JP 60145887 | A2 | 19850801 | JP 1984-192765 | 19840917 |
| PRAI | US 1983-567297 | A | 19831230 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|--|------------|-------|------------------------------------|
| | EP 147643 | ICM | B41M005-24 |

AB An electroerosion recording material having improved scratch resistance is obtained by incorporating a hard lubricating hydrophobic polymer layer between the support and the removable metal recording layer to reduce plastic deformation of the support under the stylus writing pressure. The polymer layer contains graphite fluoride and/or a fluorocarbon resin, such as Teflon, and hard particles, such as silica, and provides good adhesion between the overlying metal film (i.e. Al) and the support. The recording material may be used in making directly readable images, direct negs., and wear-resistant offset printing plates. Thus, a mixture of a 20% cellulose acetate butyrate solution in a 4:1 THF-PhMe mixture

30, amorphous silica 5.5, graphite fluoride 1, a polyester-polyol dispersing agent (R221-75) 0.3, and a fluorocarbon surfactant (FC-430) 0.05 part was ball milled. The dispersion 10 parts was mixed with the cellulose acetate butyrate solution 10, a polyisocyanate (CB-75) 4.5, a 4:1 THF-PhMe mixture 8, stannous octoate 0.01, and FC-430 0.01 part, coated on a Mylar film, heat-treated at 100° to provide a 5-6-μm dry layer, deposited with a 250-400 Å Al film (resistivity

STN search for 10765,797

2-2.5 Ω/cm^2), and used in a high-speed electroerosion printer with a multi-stylus printing head to give excellent images with no accumulation of eroded debris on the printing head.

ST electroerosion recording material intermediate layer; graphite fluoride electroerosion recording material; polymer hydrophobic electroerosion recording material

IT Recording materials (electroerosion, containing support and metal top layer and intermediate layer containing silica and fluorocarbon resin and graphite fluoride)

IT Polyesters, uses and miscellaneous

RL: USES (Uses) (hydroxy-terminated, intermediate layer containing silica and graphite fluoride and fluorocarbon resin and, for electroerosion recording materials with aluminum top layer)

IT Lithographic plates (offset, electroerosion recording material containing metal top layer and intermediate layer containing silica and fluorocarbon resin and graphite fluoride for fabrication of)

IT 7631-86-9, uses and miscellaneous

RL: USES (Uses) (amorphous, intermediate layer containing graphite fluoride and, for electroerosion recording materials containing aluminum top layer)

IT 301-10-0

RL: USES (Uses) (coating composition containing silica and graphite fluoride and cellulose acetate butyrate and, for preparation of intermediate layer for electroerosion recording materials with aluminum top layer)

IT 11114-17-3 37342-24-8

RL: USES (Uses) (coating composition containing silica, graphite fluoride, cellulose acetate butyrate and, for preparation of intermediate layer for electroerosion recording materials with aluminum top layer)

IT 7429-90-5, uses and miscellaneous

RL: USES (Uses) (electroerosion recording materials with top layer of, intermediate layer containing graphite fluoride and silica and fluorocarbon resin for)

IT 7440-25-7, uses and miscellaneous 30525-44-1

RL: USES (Uses) (intermediate layer containing graphite fluoride and silica and, for electroerosion recording materials containing aluminum top layer)

IT 11113-63-6

RL: USES (Uses) (intermediate layer containing silica and, for electroerosion recording materials with aluminum top layer)

IT 9004-36-8

RL: USES (Uses) (intermediate layer containing silica, graphite fluoride and, for electroerosion recording materials containing aluminum top layer)

IT 25038-59-9, uses and miscellaneous

RL: USES (Uses) (support, for electroerosion recording materials with aluminum top layer and intermediate layer containing graphite fluoride and silica)

L11 ANSWER 72 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1983:505915 CAPLUS

DN 99:105915

ED Entered STN: 12 May 1984

STN search for 10765,797

TI Fluorine-containing alcohol and its derivatives and a polymer comprising them

IN Ohmori, Akira; Tomihashi, Nobuyuki; Tamaru, Sinji

PA Daikin Kogyo Co., Ltd. , Japan

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA English

IC C07C043-11; C07C043-13; C07C069-653; C08F020-26; B41M001-08

ICA G03F007-10

CC 35-7 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 42, 74

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | EP 79590 | A1 | 19830525 | EP 1982-110424 | 19821111 |
| | EP 79590 | B1 | 19860219 | | |
| | R: DE, FR, GB | | | | |
| | JP 58083011 | A2 | 19830518 | JP 1981-182518 | 19811112 |
| | JP 03018643 | B4 | 19910313 | | |
| | JP 58090524 | A2 | 19830530 | JP 1981-188973 | 19811124 |
| | US 4587165 | A | 19860506 | US 1984-639855 | 19840813 |
| PRAI | JP 1981-182518 | A | 19811112 | | |
| | JP 1981-188973 | A | 19811124 | | |
| | US 1982-440305 | A1 | 19821109 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | | |
|--|------------|-------|------------------------------------|--------------|---------------|
| | EP 79590 | IC | C07C043-11IC | C07C043-13IC | C07C069-653IC |
| | | | C08F020-26IC | B41M001-08 | |
| | | ICA | G03F007-10 | | |

AB A polymer comprising monomeric units derived from $F[CF(CF_3)CF_2O]_n$ -
 $1CF(CF_3)CH_2OCOC(R):CH_2$ (I; n = 2-7; R = H, Me) has excellent ink repellent properties. I is prepared from esterification of $F[CF(CF_3)CF_2O]_n$ -
 $1CF(CF_3)CH_2OH$ (II; n as above). Thus, a solution of 51.0 g $F[CF(CF_3)CF_2O]_2CF(CF_3)COOMe$ in 200 mL Et₂O was added dropwise over 2 h to a mixture of 5.5 g LiAlH₄ and 200 mL Et₂O. The mixture was refluxed for 15 min to give II (n = 3). A mixture of C₆H₆ 50, methacrylic acid 24, II (n = 3) 48.2, and hydroquinone 0.1 g was heated to 80°. PC15 (25 g) was added to give I (n = 3). A mixture of I (n = 3) 10, hexafluoro-m-xylene (III) 20, and AIBN 0.1 g was heated at 60° for 24 h to give a transparent polymer [87000-02-0] having a glass temperature -9° and reflective index 1.3410. The polymer was dissolved in III to prepare a 10% solution and was applied on an Al plate. The coated-plate was set on a master cylinder of an offset printing machine. After 500 or 2000 revolutions of the machine, the ink adhered on plate was transferred to a white paper, and the relative reflectance of the inked paper was 12 and 14 resp., compared with 3 and 1, resp., for inked paper prepared using a plate coated with C₈F₁₇CH₂CH₂OCOC(CH₃):CH₂ polymer.

ST fluorokalkyl methacrylate polymer; methacrylic acid
fluoroallic esterification; coating fluoroalkyl
methacrylate polymer; ink repellent fluoroalkyl methacrylate
polymer

IT Coating materials
(fluoroalkyl methacrylate (co)polymers, ink-repellent, for
lithog. plates)

IT Lithographic plates
(ink-repellent compds. for, fluoroalkyl methacrylate polymers
as)

IT Polymerization

STN search for 10765,797

(of fluoroalkyl methacrylate)

IT Inks
(repellents for, fluoroalkyl methacrylate (co)polymers as,
for lithog. plates)
IT 14548-74-4P 14620-81-6P 26537-88-2P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and esterification of, with methacrylic acid)
IT 28754-14-5P 30862-04-5P 30961-84-3P 33255-74-2P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of)
IT 86999-94-2P 86999-95-3P 86999-96-4P 86999-97-5P 86999-98-6P
86999-99-7P 87000-00-8P 87000-01-9P 87000-02-0P
RL: PREP (Preparation)
(preparation of, as ink repellents for lithog. plates)

L11 ANSWER 73 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1981:452720 CAPLUS

DN 95:52720

ED Entered STN: 12 May 1984

TI Improvements in or relating to lithographic printing
plates

IN Lawson, Leslie Edward

PA Vickers Ltd., UK

SO Brit., 5 pp. Addn. to Brit. 1,513,368.

CODEN: BRXXAA

DT Patent

LA English

IC B41N003-08

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)
Section cross-reference(s): 46

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| PI GB 1575200 | A | 19800917 | GB 1975-48085 | 19751121 |
| PRAI GB 1975-48085 | | 19751121 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|------------|----|------------|
| GB 1575200 | IC | B41N003-08 |
|------------|----|------------|

AB Contamination of the hydrophilic nonimage areas of lithog.
printing plates by oleophilic materials during curing of the
photopolymer coating is prevented by treating the surface of imagewise
exposed and developed plates with a water-soluble or -dispersible material
capable of forming a barrier layer on the nonimage areas during
heating and which can be removed after heating by
washing. The barrier-forming material is an alkyl- or arylsulfonate-type
surfactant or colloidal SiO₂. Thus, a pos. working anodized Al
printing plate with a photosensitive coating containing novolak resin
and o-quinone diazide was imagewise exposed and developed in an alkaline
silicate composition. After washing and drying the plate was wiped with a 7%
aqueous solution of gum arabic containing 22% Na

dodecylphenoxybenzenedisulfonate

followed by heating 20 min at 230° and washing. When
used in an offset printing process the plate produced good clean
copies whereas a similar plate desensitized with gum arabic after
heating took up ink in the nonimage areas.

ST desensitization lithog printing plate; gum arabic
desensitization printing plate; sulfonate surfactant
desensitization printing plate; dodecylphenoxybenzenesulfonate
desensitization printing plate; phenoxybenzenesulfonate

STN search for 10765,797

desensitization printing plate; silica colloidal desensitization printing plate
IT Lithographic plates
(desensitization of, gum arabic-sulfonate surfactant compns. for)
IT Surfactants
(nonionic, alkyl- and arylsulfonate, desensitization by, of printing plates)
IT Sulfonic acids, compounds
RL: USES (Uses)
(perfluoroalkane, salts, compns. containing gum arabic and, for desensitization of printing plates)
IT 1344-28-1, uses and miscellaneous 7631-86-9, uses and miscellaneous
RL: USES (Uses)
(colloidal, compns. containing gum arabic and, for desensitization of printing plates)
IT 25155-19-5D, alkyl derivs., sodium salt 77641-76-0
RL: USES (Uses)
(compns. containing CMC and, for desensitization of printing plates)
IT 577-11-7 25155-30-0 26545-58-4 58318-10-8
RL: USES (Uses)
(compns. containing alginate and, for desensitization of printing plates)
IT 2795-39-3 12626-49-2 12751-11-0 30734-90-8
RL: USES (Uses)
(compns. containing gum arabic and, for desensitization of printing plates)
IT 9000-01-5 9004-32-4 9005-34-9 9005-38-3
RL: USES (Uses)
(compns. containing nonionic surfactant and, for desensitization of printing plates)

L11 ANSWER 74 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1978:476199 CAPLUS

DN 89:76199

ED Entered STN: 12 May 1984

TI Printing plates

IN Thomas, Eric William; Maistros, Thomas Joseph

PA Industrial Electronic Rubber Co., USA

SO Fr. Demande, 16 pp.

CODEN: FRXXBL

DT Patent

LA French

IC B41N009-02

CC 38-15 (Elastomers, Including Natural Rubber)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | FR 2352675 | A1 | 19771223 | FR 1977-16109 | 19770526 |
| | FR 2352675 | B1 | 19840224 | | |
| | DE 2718224 | A1 | 19771215 | DE 1977-2718224 | 19770423 |
| | CA 1094269 | A1 | 19810127 | CA 1977-279213 | 19770526 |
| | GB 1568412 | A | 19800529 | GB 1977-22516 | 19770527 |
| | JP 52147103 | A2 | 19771207 | JP 1977-61771 | 19770528 |
| PRAI | US 1976-690856 | A | 19760528 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|------------|----|------------|
| FR 2352675 | IC | B41N009-02 |
|------------|----|------------|

AB Printing plates with good resistance to heat, chems.,

STN search for 10765,797

swelling, and compression and with smooth void-free surfaces are manufactured by coating a cotton textile with a foamable composition containing a fluoroelastomer to 0.38-43 mm, covering with a cotton textile, coating with a nonfoamable fluoroelastomer, placing this sandwiched between steel plates enclosed on 4 sides, and heating at 150-200° at 7.73 kg/cm² for 5 min to foam and vulcanize.

ST printing plate fluoroelastomer composite; rubber
fluoro printing plate

IT Rubber, synthetic
RL: USES (Uses)
(fluoro, manufacture of offset printing plates from)

IT Rubber, synthetic
RL: USES (Uses)
(hexafluoropropene-vinylidene fluoride, manufacture of offset printing plates from)

IT Lithographic plates
(offset, manufacture of, from fluoroelastomers)

L11 ANSWER 75 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1977:503135 CAPLUS

DN 87:103135

ED Entered STN: 12 May 1984

TI Dry offset printing

IN Sanders, James Frederick

PA Minnesota Mining and Manufacturing Co., USA

SO Ger. Offen., 20 pp.

CODEN: GWXXBX

DT Patent

LA German

IC B41N001-14

CC 37-3 (Plastics Fabrication and Uses)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | DE 2655837 | A1 | 19770623 | DE 1976-2655837 | 19761207 |
| | DE 2655837 | B2 | 19800110 | | |
| | DE 2655837 | C3 | 19800828 | | |
| | CA 1100371 | A1 | 19810505 | CA 1976-266597 | 19761125 |
| | DK 7605442 | A | 19770609 | DK 1976-5442 | 19761203 |
| | DK 148840 | B | 19851021 | | |
| | DK 148840 | C | 19860317 | | |
| | SE 7613594 | A | 19770609 | SE 1976-13594 | 19761203 |
| | SE 426105 | B | 19821206 | | |
| | SE 426105 | C | 19830317 | | |
| | NL 7613484 | A | 19770610 | NL 1976-13484 | 19761203 |
| | BE 849149 | A1 | 19770607 | BE 1976-173040 | 19761207 |
| | FR 2334503 | A1 | 19770708 | FR 1976-36755 | 19761207 |
| | FR 2334503 | B1 | 19810410 | | |
| | BR 7608212 | A | 19771122 | BR 1976-8212 | 19761207 |
| | AT 350596 | B | 19790611 | AT 1976-9048 | 19761207 |
| | AT 7609048 | A | 19781115 | | |
| | GB 1549259 | A | 19790725 | GB 1976-51032 | 19761207 |
| | SU 679121 | D | 19790805 | SU 1976-2428669 | 19761207 |
| | CH 627007 | A | 19811215 | CH 1976-15360 | 19761207 |
| | JP 52076104 | A2 | 19770627 | JP 1976-147597 | 19761208 |
| | JP 57008678 | B4 | 19820217 | | |
| PRAI | US 1975-638454 | A | 19751208 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

STN search for 10765,797

DE 2655837 IC B41N001-14
AB Plates for the title process, giving sharp impressions, contain dispersions of solid, fluorinated compds. giving surfaces which repel oil dyes. Thus, heating a 50% THF solution of 70 parts C8F17SO2N(Et)CH2CH2O2CCH:CH2 and 30 parts HOCH2CH2O2CCH:CH2 24 h at 50° gives copolymer (I) [63740-61-4]. A solution of 15 parts I in 70 parts MeCOEt is stirred with a solution of 30 parts Geon 128 (PVC) [9002-86-2] in 70 parts PhMe 3 h, coated to 0.076 mm on paper or corona-treated polyester film, and dried to coating weight 0.11 g/dm². After being provided with an image by pencil, pen, or copying apparatus, this plate gives >700 high-quality impressions in dry, offset printing.
ST offset printing plate dry; fluoropolymer printing plate
IT Lithographic plates (fluoropolymer-plastics dispersions for dry)
IT Binding materials (plastics, for fluoropolymer dispersions for dry offset printing plates)
IT 63729-39-5 63740-61-4
RL: USES (Uses)
(dispersions in plastics, for dry offset printing plates)
IT 9002-86-2 24937-78-8 63793-45-3
RL: USES (Uses)
(fluoropolymer dispersions in, for dry offset printing plates)

L11 ANSWER 76 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1976:97852 CAPLUS
DN 84:97852
ED Entered STN: 12 May 1984
TI Lithographic printing plates
IN Kojima, Hideo
PA Dai Nippon Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC B41C; B41M
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 50089103 | A2 | 19750717 | JP 1973-138328 | 19731206 |
| PRAI JP 1973-138328 | A | 19731206 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|----------------|------------------------------------|
| JP 50089103 | IC B41CIC B41M | |

AB An elec. conductive support is coated with a fluorocarbon resin, and the resin layer is imagewise decomposed by using an elec. discharge to give a lithog. printing plate which does not require an aqueous wetting solution during printing. Thus, an Al-laminated paper support was coated with Oil Barrier FP-85 and heated at 130° for 30 min to form a 3-μ thick fluorocarbon resin layer; images were then drawn on the coating layer by using Duplofax R-313 (an elec. discharge-type imaging apparatus) to give a lithog. plate which was used in an offset printing machine without a wetting solution to give 200 clear prints.

ST lithog printing plate fluorocarbon resin

IT Electric discharge, chemical and physical effects

STN search for 10765,797

(in imaging of fluorocarbon thin layer on elec. conductive support for lithog. printing plate preparation)

IT **Fluorocarbons**

RL: USES (Uses)
(lithog. plates nonimage areas from, for printing without using aqueous wetting solns.)

IT **Lithographic plates**

(offset, with fluorocarbon nonimage areas for printing without using aqueous wetting solns.)

IT 7429-90-5, uses and miscellaneous

RL: USES (Uses)
(lithog. plates from fluorocarbon layer on hydrophobic, for printing without using wetting solns.)

L11 ANSWER 77 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1976:24435 CAPLUS

DN 84:24435

ED Entered STN: 12 May 1984

TI Dry planographic printing plate

IN Cords, Donald P.

PA du Pont de Nemours, E. I., and Co., USA

SO U.S., 14 pp.

CODEN: USXXAM

DT Patent

LA English

IC B41M; B41N; G03F

NCL 101450000

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 3910187 | A | 19751007 | US 1973-390372 | 19730822 |
| PRAI | US 1971-176094 | A2 | 19710830 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES | | |
|------------|-------|------------------------------------|--|--|
|------------|-------|------------------------------------|--|--|

| | | | | |
|------------|-----|-----------|--------|------|
| US 3910187 | IC | B41MIC | B41NIC | G03F |
| | NCL | 101450000 | | |

AB Fluorinated compds. having a fluorinated radical at one end and the polar. Radical at the other end and F-containing polymers having a fluorinated radical linked to a radical having a polymerizable C-to-C linkage are ink-repellent and are used in the preparation of lithog. plates. Thus, a brushed and smooth Cu plate was spray coated with a 10% solution of a mixture of 95 parts $CF_3(CF_2)5CH_2CH_2OCOCH:CH_2$ and 5 parts of benzoin methyl ether in 1,1,2-trichloro-1,2,2-trifluoroethane to give a dry layer of 0.0025 cm thick, exposed through a stencil to light from a G. E. Blacklite fluorescent tube at a distance of 5 in and for 1 min, heated to 150-175° until the monomer ceased to vaporize, and when contacted with printing ink accepted ink only in the nonexposed areas.

ST lithog plate fluorinated compd; fluorine polymer lithog plate

IT **Lithographic plates**

(fluorinated compds. and fluorinated polymers for, ink-rejecting)

IT Polymers, uses and miscellaneous

RL: USES (Uses)
(fluorinated, for lithog. plates, ink-rejecting)

IT **Fluorocarbons**

RL: USES (Uses)
(for lithog. plates, ink-rejecting)

IT Ligoine

STN search for 10765,797

RL: USES (Uses)
(lithog. plate coating composition containing fluorinated compds. and, ink-repellent)
IT 140-10-3, uses and miscellaneous
RL: USES (Uses)
(lithog. plate coating composition containing fluorinated compound, methylene chloride, and, ink-repellent)
IT 1996-88-9 2144-53-8 2144-54-9 2357-60-0 22205-15-8 57678-10-1
57678-11-2
RL: USES (Uses)
(lithog. plate coating composition containing, ink-repellent)
IT 15498-45-0 29402-20-8 31205-99-9 50641-94-6 57678-87-2
57678-88-3 57678-89-4 57706-39-5 57762-85-3
RL: USES (Uses)
(lithog. plate coating composition, ink-repellent)
IT 9002-84-0 25656-06-8 57677-96-0 57677-97-1 57677-98-2 57678-00-9
57678-02-1 57678-04-3 57678-06-5 57678-08-7 57678-09-8
57678-91-8 57678-92-9 57678-93-0 57678-94-1 57678-95-2
57678-96-3 57927-84-1
RL: USES (Uses)
(lithog. plate preparation by ink-repellent)
IT 17527-29-6 17741-60-5 27905-45-9 34395-24-9
RL: USES (Uses)
(photopolymerizable composition containing benzoin methyl ether and, for lithog. plates)
IT 3524-62-7
RL: USES (Uses)
(photopolymerizable compns. containing fluorinated alkyl acrylates and, for lithog. plates)

L11 ANSWER 78 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1975:450793 CAPLUS

DN 83:50793

ED Entered STN: 12 May 1984

TI Fabrication of lithographic plate

IN Shinozaki, Fumiaki; Tsuboi, Masayoshi

PA fugi, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

NCL 116A42; 116A411; 103H0

CC .74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 50015602 | A2 | 19750219 | JP 1973-66635 | 19730613 |
| | JP 56004907 | B4 | 19810202 | | |
| PRAI | JP 1973-66635 | A | 19730613 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|-------------|-----|--------|
| JP 50015602 | NCL | 116A42 |
|-------------|-----|--------|

AB The Ag images formed on the hydrophilic layer prepared from a thermoplastic phenolic resin and a water-soluble polymer such as polyether, polyamine, or polyamide are converted to lipophilic images by contacting the images with an aqueous solution containing a Ag oxidizing agent and a water-soluble peroxide to give a lithog. plate. The treatment converts the hydrophilic layer to the lipophilic layer without etching and also hardens the layer, and

STN search for 10765,797

thus the lithog. plates prepared by this method can be used repeatedly. Thus, a poly(ethylene terephthalate) support was coated with a mixture consisting of phenolic resin (60% solids) 13.5, polyethylene oxide (average mol. weight 1,000,000-5,000,000) 12.0, p-toluenesulfonic acid monohydrate 0.15, fluoroglucitol dihydrate 0.6 g, and DMF 600 ml, heated 30 min at 120°, then treated with aqueous Ni nitrate solution and aqueous (NH4)2S solution, then Ag images were formed on the film by using Ag complex diffusion transfer method, and the sheet was treated with an aqueous solution containing CuCl2 8 and (NH4)2S2O8 10 g/3 l. to give a lithog. plate which was useful in offset printing.

ST lithog plate fabrication; silver halide lithog plate

IT Phenolic resins

RL: USES (Uses)
(lithog. plate coating composition containing polyethylene oxide and, for silver diffusion-transfer imaging)

IT Lithographic plates
(phenolic resin-polyethylene oxide coating compns. for, for diffusion-transfer silver image production)

IT 25322-68-3

RL: USES (Uses)
(lithog. plate coating compns. containing phenolic resins and)

IT 104-15-4, uses and miscellaneous 12135-76-1 13138-45-9 55787-71-8

RL: USES (Uses)
(lithog. plate phenolic resin-polyethylene oxide coating composition containing)

IT 7447-39-4, uses and miscellaneous

RL: USES (Uses)
(lithog. plate treatment solution containing ammonium peroxydisulfate and)

IT 7727-54-0

RL: USES (Uses)
(lithog. plate treatment solution containing copper chloride and)

L11 ANSWER 79 OF 79 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1967:469474 CAPLUS
DN 67:69474
ED Entered STN: 12 May 1984
TI Printing plates
PA Grafi-France
SO Fr., 3 pp.
CODEN: FRXXAK
DT Patent
LA French
IC B41N
CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI FR 1465951 | | 19670113 | FR | 19660126 |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---|-------|------------------------------------|
| ----- | ----- | ----- |
| FR 1465951 | IC | B41N |
| AB A layer of polyfluoroethylene is formed on those parts of a printing plate which do not receive ink, thereby avoiding the use of water and saving ink. Polytetrafluoroethylene (I) or polytrifluorochloroethylene may be used. A steel plate is cleaned by brushing with oxalic acid, H2SO4, or H2O2, sensitized with a coating of | | |

STN search for 10765,797

poly(vinyl alc.) containing (NH4)2Cr2O7, and exposed through a negative to actinic radiation. A thin coating of phenol-formaldehyde lacquer is applied, and the unexposed portions of the coating are removed by dissolving in H2O. Cu is electrolytically deposited on the bare steel portions of the plate and the Cu surfaces are protected with a poly(vinyl chloride) coating. Exposed bichromate is then removed and the bare steel surfaces coated with I to a thickness of ≥ 0.025 mm. The whole plate is then heated to $>400^\circ$ to harden the I and brushed to expose the Cu surfaces which are to receive ink.

ST FLUOROETHYLENES PRINTING PLATES; PRINTING PLATES FLUOROETHYLENES; POLYFLUOROETHYLENES PRINTING PLATES; PLATES PRINTING FLUOROETHYLENES

IT Lithography
(plates, oleophobic coatings for, tetrafluoroethylene polymers as)

IT 9002-84-0, uses and miscellaneous
RL: USES (Uses)

(coatings of, on lithographic plates)

=> d his

(FILE 'HOME' ENTERED AT 15:59:04 ON 15 MAR 2005)

FILE 'CPLUS' ENTERED AT 15:59:38 ON 15 MAR 2005

L1 59363 S LITHOG?
L2 715 S PLANOGR?
L3 59785 S L1 OR L2
L4 2760301 S HEAT? OR INFRARED OR INFRA RED OR IR OR THERMAL PRINthead OR
L5 6643 S L4 AND L3
L6 400557 S FLUORO? OR PERFLUORO?
L7 215 S L6 AND L5
L8 242856 S DYE
L9 10 S L7 AND L8
L10 205 S L7 NOT L9
L11 79 S L10 AND PRINT?

=> log y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 297.59 | 297.80 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -64.97 | -64.97 |

STN INTERNATIONAL LOGOFF AT 16:03:22 ON 15 MAR 2005

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|-------|--|--|------------------|---------|------------------|
| | | perfluoro\$ and 430/270.1-309.ccls. and (ir infrared infra adj red heat\$) perfluoro\$ | USPAT | OR | OFF | 2005/03/15 19:07 |
| L1 | 13657 | perfluoro\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/15 19:04 |
| L2 | 33009 | perfluoro\$ | USPAT | OR | OFF | 2005/03/15 19:05 |
| L3 | 2018 | perfluoro\$ | EPO | OR | OFF | 2005/03/15 19:05 |
| L4 | 9715 | perfluoro\$ | EPO; JPO | OR | OFF | 2005/03/15 19:05 |
| L5 | 27346 | perfluoro\$ | EPO; JPO; DERWENT | OR | OFF | 2005/03/15 19:05 |
| L6 | 1016 | perfluoro\$ and 430/270.1-309.ccls. | USPAT | OR | OFF | 2005/03/15 19:06 |
| L7 | 954 | perfluoro\$ and 430/270.1-309.ccls. and (ir infrared infra adj red heat\$10) | USPAT | OR | OFF | 2005/03/15 19:07 |
| L8 | 397 | perfluoro\$ and 430/270.1-309.ccls. and (ir infrared infra adj red) | USPAT | OR | OFF | 2005/03/15 19:08 |
| L9 | 32 | perfluoro\$ same dye\$3 and 430/270.1-309.ccls. and (ir infrared infra adj red) | USPAT | OR | OFF | 2005/03/15 19:17 |
| L10 | 69 | perfluoro\$ same (squarylium croconate cyanine phthalocyanine merocyanine chalcogenopyrroarylidene oxyindolizine quinoid indolizine pyrlyium dithiolenne) and (ir infrared infra adj red) | USPAT | OR | OFF | 2005/03/15 19:27 |
| L11 | 82 | perfluoro\$ and "101"/\$.ccls. and (ir infrared infra adj red) | USPAT | OR | OFF | 2005/03/15 19:27 |
| S60 | 2 | ep-1031579-\$.did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/15 12:34 |
| S61 | 1 | ("20030083396").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/09/09 15:05 |
| S62 | 1 | ("4837256").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/23 15:58 |
| S63 | 1 | 2003WO-us19136.prai,ap. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/23 16:26 |
| S64 | 1 | wo-200020517-\$.did. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/23 16:30 |
| S65 | 2 | wo-9903930-\$.did. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/23 16:30 |
| S66 | 1 | ("5916488").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/23 18:24 |
| S67 | 1 | ("6447749").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/23 18:26 |
| S68 | 1 | ("20030129532").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/23 18:34 |
| S69 | 1 | ("4746531").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/23 18:35 |

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| S70 | 1 | ("4743531").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/23 18:37 |
| S71 | 1 | ("4743530").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/23 18:38 |
| S72 | 1 | ("4324741").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:25 |
| S73 | 10 | perfluorometh? | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:26 |
| S74 | 15 | perfluoroeth? | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:26 |
| S75 | 3961 | perfluoroprop\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:26 |
| S76 | 4243 | perfluoroeth\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:26 |
| S77 | 3194 | perfluorometh\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:26 |
| S78 | 4313 | perfluorobut\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:26 |
| S79 | 1223 | perfluoropent\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:26 |
| S80 | 2809 | perfluorohex\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:27 |
| S81 | 1082 | perfluorohept\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:27 |
| S82 | 6009 | perfluorooct\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:27 |
| S83 | 730 | perfluoronon\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:27 |
| S84 | 2104 | perfluorodec\$ | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:27 |
| S85 | 315463 | (ir infrared infra adj red) | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:28 |
| S86 | 15789 | S75 S76 S77 S78 S79 S80 S81 S82 S83 S84 | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:28 |
| S87 | 4920 | S86 and S85 | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:28 |
| S88 | 460 | S86 same S85 | US-PGPUB; USPAT | OR | OFF | 2005/02/24 13:28 |
| S89 | 31 | S87 and 430/302-303.cds. | US-PGPUB; USPAT | OR | OFF | 2005/02/24 14:43 |
| S90 | 246 | S87 and 430/270.1-309.cds. | US-PGPUB; USPAT | OR | OFF | 2005/02/24 15:00 |
| S91 | 1 | ("3419595").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/24 15:00 |
| S92 | 0 | wo-2001096119-.did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/25 09:03 |
| S93 | 1 | wo-200196119-.did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/25 08:59 |
| S94 | 1 | ("6352812").PN. | US-PGPUB; USPAT | OR | OFF | 2005/02/25 09:00 |

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| S95 | 2 | wo-9967097-\$ did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/25 09:04 |
| S96 | 2 | wo-9911459-\$ did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/25 09:04 |
| S97 | 3979 | perfluoroprop\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S98 | 4274 | perfluoroeth\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S99 | 3212 | perfluorometh\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S100 | 4344 | perfluorobut\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S101 | 1230 | perfluoropent\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S102 | 2830 | perfluorohex\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S103 | 1085 | perfluorohept\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S104 | 6038 | perfluorooct\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S105 | 733 | perfluoronon\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S106 | 2125 | perfluorodec\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S107 | 317263 | (ir infrared infra adj red) | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S108 | 15887 | S97 S98 S99 S100 S101 S102 S103 S104 S105 S106 | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S109 | 4962 | S108 and S107 | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S110 | 247 | S109 and 430/270.1-309.ccl\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:48 |
| S111 | 13 | S110 and oleophil\$ | US-PGPUB; USPAT | OR | OFF | 2005/03/14 18:49 |
| S112 | 2 | ("5466557" "5491046").PN. | US-PGPUB; USPAT | OR | OFF | 2005/03/15 12:34 |